

POST CLOSURE REPORT

Naval Weapons Industrial Reserve Plant Calverton, New York



Northern Division Naval Facilities Engineering Command

Contract Number N62472-90-D-1298

Contract Task Order 0270

JUNE 1998

C F BRAUN ENGINEERING CORPORATION

POST CLOSURE REPORT

**NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
CALVERTON, NEW YORK**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

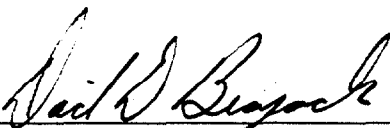
**Submitted to:
Northern Division
Environmental Branch Code 18
Naval Facilities Engineering Command
10 Industrial Highway, Mall Stop #82
Lester, Pennsylvania 19113-2090**

**Submitted by:
C F Braun Engineering Corporation
600 Clark Avenue, Suite 3
King of Prussia, Pennsylvania 19406-1433**

**CONTRACT NUMBER N62472-90-D-1298
CONTRACT TASK ORDER 0270**


JUNE 1998

PREPARED BY:



**DAVID D. BRAYACK
PROJECT MANAGER
PITTSBURGH, PENNSYLVANIA**

APPROVED BY:



**JOHN J. TREPANOWSKI
PROGRAM MANAGER
KING OF PRUSSIA, PENNSYLVANIA**

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION.....	1
1.1 PURPOSE	1
1.2 FACILITY LOCATION.....	2
1.3 FACILITY HISTORY	2
1.4 GEOLOGY	5
1.5 HYDROGEOLOGY.....	6
2.0 TANK REMOVAL	7
2.1 STEAM PLANT ABOVE GROUND STORAGE TANKS 06-05-4 AND 06-05-5	7
2.2 FUEL DEPOT ABOVE GROUND STORAGE TANK 06-12-12	9
2.3 GUN BUTTS BELOW GROUND STORAGE TANK 06-40-1	10
2.4 MACHINE SHOP BELOW GROUND STORAGE TANK 06-74-1	13
2.5 TRANSPORTATION BUILDING BELOW GROUND STORAGE TANK 06-42-1.....	15
2.6 FUEL DEPOT BELOW GROUND STORAGE TANKS 06-12-13, 06-12-14, 06-12-15.....	17
 <u>APPENDICES</u>	
A COUNTY ACCEPTANCE LETTER	
B PETROLEUM BULK STORAGE APPLICATION	
C FIELD NOTES/WORK PLAN	
D ANALYTICAL METHODS AND RESULTS	
E CHAIN OF CUSTODY AND SAMPLE LOG SHEETS	
F PHOTOGRAPHS	
G RECYCLE/DISPOSAL RECORDS - CLEAN FILL CERTIFICATION	
H TANK FIGURES	

FIGURES

<u>NUMBER</u>	<u>PAGE</u>
1-1 General Location Map	3
1-2 Site Locations	4

1.0 INTRODUCTION

1.1 PURPOSE

The Northern Division of the Naval Facilities Engineering Command has issued Contract Task Order (CTO) 0270 to CF Braun Engineering Corporation through a master agreement with Brown and Root Environmental (B&R Environmental), under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract N62472-90-D-1298 to conduct a Tank Removal at the Naval Weapons Industrial Reserve Plant (NWIRP), located in Calverton, New York. This work was required in order to support the closure and eventual transfer of the Calverton property.

As part of this work, three above ground storage tanks and six underground storage tanks were removed from the NWIRP Calverton from March 30 to April 3, 1998. The Suffolk County Department of Health Services, which was delegated Petroleum Bulk Storage program authority by the New York State Department of Environmental Conservation, provided regulatory agency oversight of tank and excavation conditions in accordance with Article 12 of Suffolk County's Sanitary Code. Information about these tanks are as follows:

<u>Tank ID</u>	<u>Type</u>	<u>Location</u>	<u>Size</u>	<u>Former Contents</u>
06-05-4	AST	Steam Plant	275 gallons	Diesel Fuel
06-05-5	AST	Steam Plant	275 gallons	Diesel Fuel
06-12-12	AST	Fuel Depot	550 gallons	JP-5
06-40-1	UST	Gun Butts	1,000 gallons	No. 2 Oil
06-74-1	UST	Machine Shop	550 gallons	Waste Oil
06-42-1	UST	Transportation Bldg.	550 gallons	Waste Oil
06-12-13	UST	Fuel Depot	10,000 gallons	Diesel
06-12-14	UST	Fuel Depot	10,000 gallons	Gasoline
06-12-15	UST	Fuel Depot	20,000 gallons	Gasoline

Additional information on the tanks is provided in Section 2.0 of this report.

1.2

FACILITY LOCATION

The tanks involved in this study are located within the confines of the NWIRP Calverton, Suffolk County, New York (see Figure 1-1 and Figure 1-2). NWIRP Calverton is located on Long Island, approximately 70 miles east of New York City. The majority of the facility is located within the municipality of Riverhead and a small area on the western side of the facility is located within Brookhaven.

The NWIRP Calverton Facility was formerly a Government-Owned Contractor-Operated (GOCO) facility which was operated by the Northrop Grumman Corporation. The facility has an overall area of approximately 6,000 acres, of which 3,000 acres lie entirely within a fenced-in boundary. The majority of the industrial activity was confined to the south central portion of this fenced-in area.

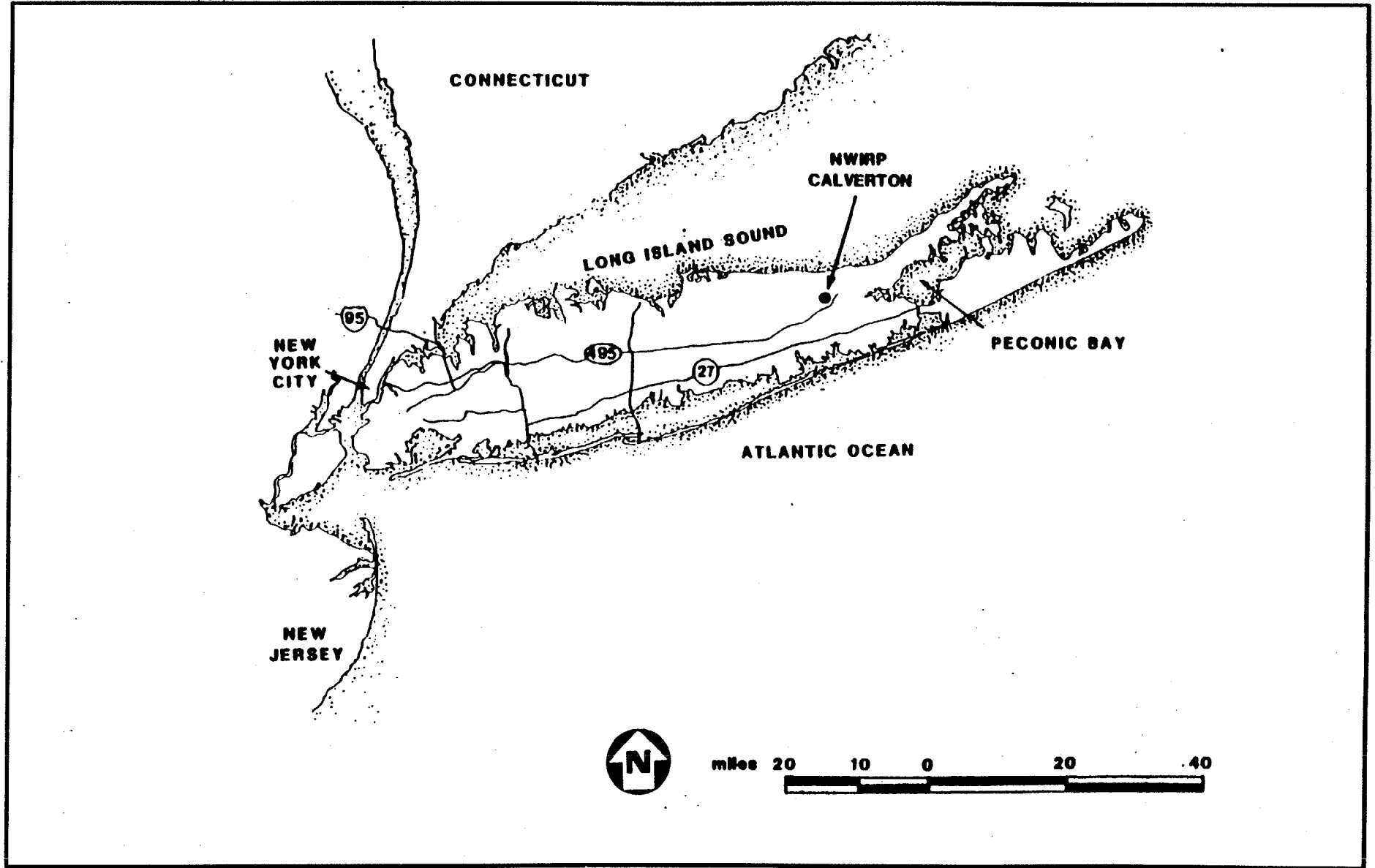
1.3

FACILITY HISTORY

NWIRP Calverton has been owned by the United States Navy since the early 1950's, at which time the land was purchased from a number of private owners. The facility was expanded in 1958 through additional purchases of privately-owned land. Northrop Grumman Corporation (previously Grumman Corporation) leased the land and was the sole operator of the facility from its construction until February 1996. In 1996, the land was returned to the United States Navy.

The Calverton facility was constructed in the early 1950's for use in the development, assembly, testing, refitting, and retrofitting of Naval combat aircraft. The facility supported aircraft design and production at the Northrop Grumman's Bethpage facility, which is located in Nassau County, New York.

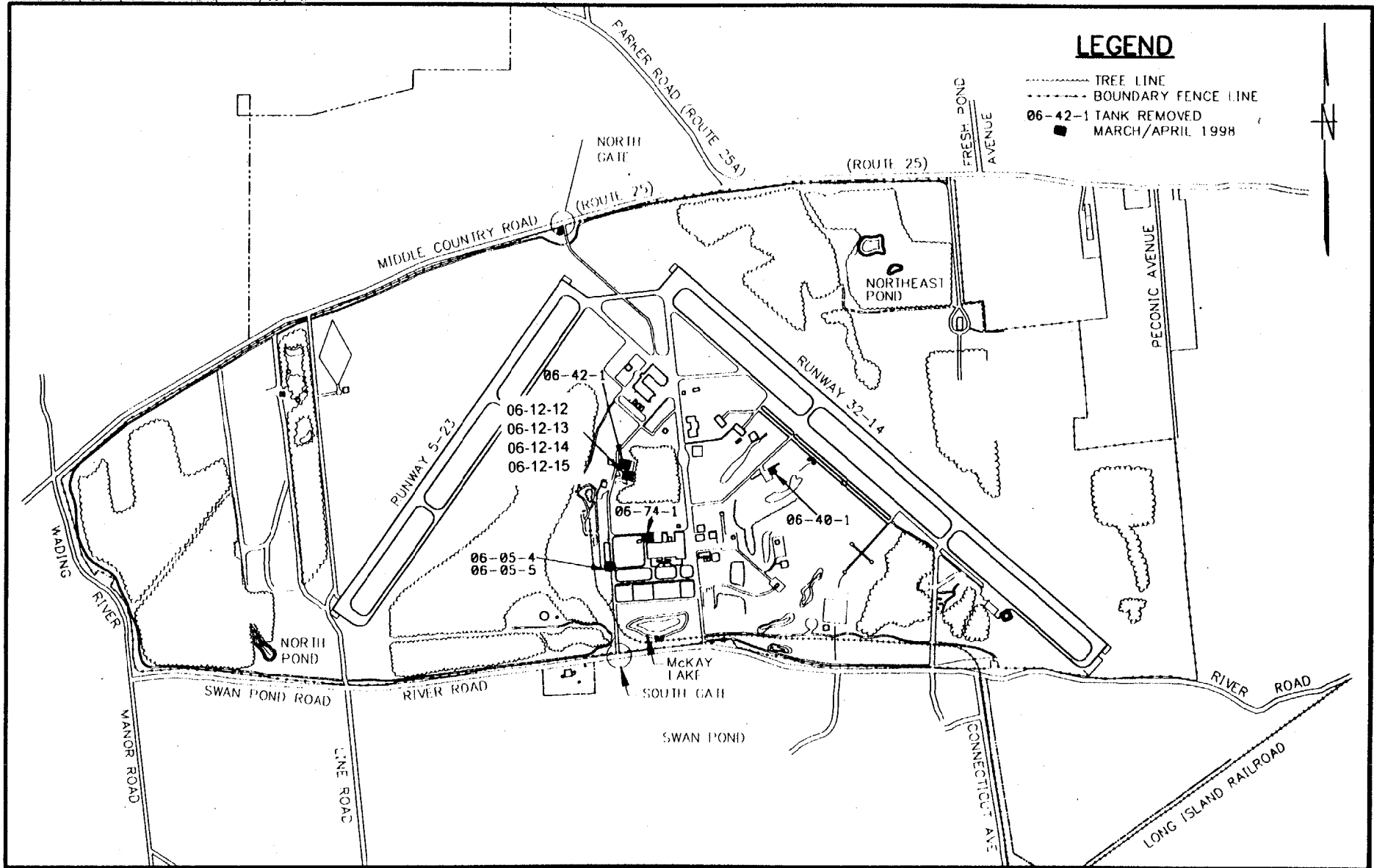
The majority of industrial activity at the facility was confined to the developed area in the center and south center of the facility, between the two runways. Industrial activities at the facility were related to the manufacture and assembly of aircraft and aircraft components.



GENERAL LOCATION MAP
NWIRP, CALVERTON, NEW YORK

FIGURE 1-1

C.F. BRAUN



SITE LOCATIONS
NWIRP, CALVERTON, NEW YORK

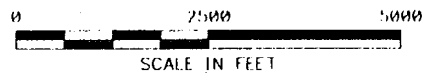


FIGURE 1-2

C.F. BRAUN

1.4

GEOLOGY

The NWIRP Calverton is predominantly underlain by fine to coarse sediments of probable glaciofluvial origin. Three distinct lithofacies were encountered during previous testing. The upper lithofacies consist predominantly of silty, fine-grained sand with varying amounts of peat and clay. Fill material, where present, is always associated with the upper lithofacies. The upper lithofacies represent a mixture of soil, fill, and glacial deposits. The middle lithofacies consist of predominantly fine-grained sand with varying amounts of medium- to coarse-grained sand, and pebbles. The middle lithofacies probably represent undisturbed glacial deposits. The lower lithofacies consist of micaceous, silty clay and may represent the Magothy Formation.

1.5

HYDROGEOLOGY

The unconsolidated sediments that underlie the NWIRP Calverton are generally coarse-grained with high porosities and permeabilities. These factors create aquifers with high yields and high transmissivities.

The Upper Glacial Formation, the Magothy Formation, and the Lloyd Sand are the major regional aquifers. The Upper Glacial and the Magothy aquifers are of principal importance in Suffolk County because of their proximity to the land surface. The Lloyd Sand is not widely exploited because of its depth.

The Upper Glacial aquifer is widely used as a source of ground water in Suffolk County. The water table beneath the NWIRP Calverton lies within this aquifer. Porosities in excess of 30 percent have been calculated for the Upper Glacial aquifer in adjoining Nassau County, Long Island. The estimated value of hydraulic conductivity is 270 feet per day (ft/day).

The Magothy aquifer is widely used as a source of ground water in Suffolk County. The most productive units are the coarser sands and gravels. The permeability of the Magothy is high; hydraulic conductivities have been calculated in excess of 70 ft/day.

The Upper Glacial and the Magothy aquifers are believed to be hydraulically interconnected and to function as a single unconfined aquifer. On-site well logs, previous hydrogeological

investigations, and geologic mapping indicate that although clay lenses are present in both aquifers that may create locally confining and/or perched conditions, these lenses are not widespread and do not function as regional aquitards.

The Raritan Clay has a very low permeability (approximately 3×10^{-5} ft/day) and hydrologically acts as a regional confining layer. The confining nature of this unit is believed to minimize the local risk of contamination to the underlying Lloyd Sand aquifer (McClymonds and Franke, 1972).

The NWIRP Calverton saddles a regional groundwater divide, with groundwater beneath the northern half flowing to the northeast and groundwater beneath the southern half of the NWIRP flowing to the southeast.

The Peconic River basin is the likely discharge point for the southern portion of the NWIRP Calverton's groundwater in the shallow aquifer zones. Long Island Sound is the likely discharge point of the northern half of the NWIRP Calverton's groundwater in the shallow aquifer zones.

2.0 TANK REMOVAL

Three above ground storage tanks and six underground storage tanks were removed from the NWIRP Calverton, between March 30, 1998 and April 3, 1998. The tank removals were conducted under regulatory oversight by the Suffolk County Department of Health Services (SCDHS)(see Appendix A). The Petroleum Bulk Storage Application is provided in Appendix B. The Work Plan for the removal activities and detailed field notes taken during the removal are provided in Appendix C.

After tank removal, soil samples were collected at each of the underground storage tank (UST) areas for confirmatory sampling. The samples were submitted to Quanterra Laboratory for volatile organic compound (VOC) and semivolatile organic compound (SVOC) analysis using methods SW846-8260B and SW846-8270C, respectively. Metal analysis (lead) was not conducted at any of the sites based on knowledge of the type of fuels stored and the period of operation. Of the areas tested, soil and groundwater at the Fuel Depot are known to be contaminated with constituents of fuels only. This area is currently being investigated under the Navy's IR Program as Site 7.

Analytical sheets showing the results of soil sampling are provided in Appendix D. Chain of Custody Forms and Sample Log Sheets are provide in Appendix E and tank specific sample results are presented in the discussion of each tank.

2.1 STEAM PLANT ABOVE GROUND STORAGE TANKS 06-05-4 AND 06-05-5

Description

Two 275-gallon above ground steel storage tanks were used at the steam plant to store diesel for auxiliary equipment. The tanks were labeled to store diesel fuel, but tank identification numbers were not displayed on the tanks. Site personnel stated that these tanks were the indicated storage tanks. In April 1998, these tanks were observed to be sitting on a concrete pad just south of the Steam Plant. The tanks were not anchored to the ground.

Contents

Tanks 06-05-4 and 06-05-5 were reported to contain diesel fuel. In April 1998, the tanks were empty containing only a small amount of black viscous sludge in the bottom. Tank head space readings were indicated as follows:

Organic Vapor Analyzer:	471 to 650 parts per million (ppm)
Oxygen:	20.9 %
Lower Explosion Limit Reading:	6 to 9%
Benzene:	50 ppm

Tank Removal

The tanks were observed to be located on a concrete surface (see Appendix F for photographs). The tanks were visually inspected and found to be free of holes or signs of leaks. Staining of the underlying concrete was not observed. These tanks were relocated to the Fuel Depot area for cleaning.

Analytical Data

Samples were not collected of the underlying concrete below the tanks.

Tank Decontamination

The tanks were cut open and cleaned using speedi-dry and rags. All petroleum residue was removed from the tanks.

Waste Disposal

The cleaned steel tanks were taken to Gershow Recycling, 71 Peconic Avenue, Medford, NY 11763, NYS ID# 7002727. The tank decontamination residue was drummed and staged at the Fire Training Area and then transported to A B Oil Services of Bohemia, New York. See Appendix G for metal recycler and sludge disposal receipts.

2.2 FUEL DEPOT ABOVE GROUND STORAGE TANK 06-12-12

Description

One 550-gallon above ground steel storage tank was used at the Fuel Depot to store JP-5 (jet fuel tank was labeled as diesel. A sign adjacent to the tank confirmed the tank ID and contents (see Appendix F for photographs). The tank was mounted on a pad, just east of the Fuel Depot pump room.

Contents

Tank 06-12-12 was reported to contain JP-5. In April 1998, minor quantities of fuel were noted in the bottom of the tank. On April 1, 1998, a vacuum truck was used to remove any residues. Tank head space readings were indicated as follows.

Organic Vapor Analyzer:	650 ppm
Oxygen:	20.9 %
Lower Explosion Limit Reading:	9%

Tank Removal

The tank was located on a concrete surface. The tank was visually inspected and found to be free of holes or signs of leaks. Staining of the underlying concrete was not observed. Piping associated with the tank and leading to the Fuel Depot pump room was cut to the building.

Analytical Data

Samples were not collected of the underlying concrete below the tank.

Tank Decontamination

The tank were cut open and cleaned using speedi-dry and rags. All petroleum residue was removed from the tank.

Waste Disposal

The drained, steel piping and cleaned steel tank were taken to Gershow Recycling, 71 Peconic Avenue, Medford, NY 11763, NYS ID# 7002727. The tank decontamination residue was drummed and staged at the Fire Training Area and then transported to A B Oil Services of Bohemia, New York. See Appendix G for metal recycler and sludge disposal receipts.

2.3 GUN BUTTS BELOW GROUND STORAGE TANK 06-40-1

Description

One 1,000-gallon below ground, fiberglass reinforced plastic (FRP) storage tank was used at the Gun Butts Area to store No. 2 fuel oil for building heating purposes. A sign adjacent to the tank confirmed the tank ID and contents, (see Appendix F for photographs). The tank was located below a concrete pad just south of the Gun Butts Building.

Contents

Tank 06-40-1 was reported to contain No 2 fuel oil. In March 1998, approximately 2.5-inches of liquid were noted in the bottom of the tank. On April 1, 1998, a vacuum truck was used to remove all residues. Tank head space readings were indicated as follows.

Organic Vapor Analyzer:	100 ppm
Oxygen:	21.2 to 21.4 %
Lower Explosion Limit Reading:	6 %

Tank Removal

The tank was located below a concrete pad. This pad was removed, and then the overlying soils excavated to the top of the tank. As the overlying soils were removed, the soils were evaluated for contamination both visually (staining) and with an organic vapor analyzer (OVA). There was no evidence of contamination in the excavated soils. Associated fill, vent, supply, and return lines leading to the Gun Butts Building were removed. A minor quantity of water (less than 1 gallon) was observed in the vent line. This liquid was drained onto adsorbent pads.

The tank was removed intact (see Appendix F). The hole observed in photographs taken during the removal action on the top of the tank occurred during tank removal activities. Once above ground, the tank was visually inspected and found to be free of holes or signs of leaks. The tank excavation activities were observed by the SCDHS and found to be acceptable.

Five soil samples were collected from the bottom of the excavation. A slight organic odor was noted; however, the odor was septic instead of fuel related. Stained soils were not observed. Note that a septic system is located within 20 feet of this tank. OVA readings of the five samples were 0, 0, 0, 2, and 6 ppm, respectively. One sample was submitted to Quanterra for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis. Results are presented below.

Analytical Data

One soil sample collected from below the tank was submitted for analytical testing. A summary of the results is defined below. Parameters not shown in the table were not detected in the sample. For comparison, NYSDEC guidance values are also presented.

Tank Decontamination

The tank were cut open and cleaned using speedi-dry and rags. All petroleum residue was removed from the tank. The tanks were then shredded to allow for landfilling.

Backfill

After review of the excavation and tank by the SCDHS, the excavation was back filled with excavated soils and clean material from the 110 Sand Company, see Appendix G. The area was rough graded.

Parameter	NYSDEC STARS Memo No. 1 Soil Criteria (mg/kg)	Tank 06-40-1 Soil Result (mg/kg)
Methylene chloride	NA	0.0038
Acenaphthene	5,000	0.075J
Benzo (a) anthracene	0.22	0.099J
Benzo (a) pyrene	0.061	0.27J
Benzo (b) fluoranthene	0.22	0.33J
Benzo (g,h,i) perylene	NA	0.21J
Benzo (k) fluoranthene	0.22	0.13J
Bis(2ethylhexyl) phthalate	NA	0.038J
Carbazole	NA	0.062J
Fluoranthene	3,000	0.680
Fluorene	3,000	0.043
Indeno(1,2,3-CD) pyrene	NA	0.19J
Phenanthrene	NA	0.40
Pyrene	2,000	0.56

NA - Not available

A comparison of the detected organics in the soils with the STARS Memo No. 1 indicate that benzo (a) anthracene and benzo (a) pyrene exceed the NYSDEC guidance values, but only by a factor of 1.5 to 3.4. Neither of the chemicals are mobile in the environment and they are not water soluble; therefore, they would not be expected to migrate. In addition, both chemicals are biodegradable, although their degradation rates are relatively slow compared to other petroleum compounds. The samples were collected at a depth of six feet below ground surface (bgs); therefore, they do not represent a threat to human health.

Waste Disposal

The concrete pad and cleaned fiberglass tank were taken to Rayson Landfill in Bethpage, New York. The tank decontamination residue was drummed and staged at the Fire Training Area

and then transported to A B Oil Services of Bohemia, New York. See Appendix G for concrete, tank, and sludge disposal receipts.

2.4 MACHINE SHOP BELOW GROUND STORAGE TANK 06-74-1

Description

One 550-gallon below ground, fiberglass reinforced plastic (FRP) storage tank was used at the Machine Shop to store waste oil from machining operations. A sign adjacent to the tank confirmed the tank ID and contents (see Appendix F for photographs). The tank was located below a concrete pad just east of the Machine Shop Building.

Based on visible piping, discussions with site personnel, and site observations at the tank, waste oils were placed into a drain inside the building. The drain led to an oil/water separator. The separated oil then flowed into the waste oil tank.

Contents

Tank 06-74-1 was reported to have been emptied and cleaned prior to its "temporarily out of service" status. In March 1998, the oil/water separator leading into the waste oil tank was observed to be full of rain water and the water was overflowing into the waste oil tank. Thirty inches of water were measured to be held in the tank. Approximately 765 gallons of water were removed from the tank and inventoried at the Fire Training Area. Tank head space readings were indicated as follows.

Organic Vapor Analyzer:	3 ppm
Oxygen:	21.3 %
Lower Explosion Limit Reading:	0 %

Tank Removal

The tank was located below a concrete pad. This pad was removed and then the overlying soils excavated to the top of the tank. As the overlying soils were removed, the soils were evaluated

for contamination both visually (staining) and with an OVA. There was no evidence of contamination in the excavated soils. Associated piping was removed to the oil/water separator. The tank was removed intact (see Appendix F).

Once above ground, the tank was visually inspected and found to be free of holes or signs of leaks. The tank excavation activities were observed by the SCDHS and found to be acceptable.

Soil samples were collected from the bottom of the excavation. No odors or stained soils were noted. OVA readings of the soil samples were all 0 ppm. One sample was submitted to Quanterra for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis. Results are presented below.

Analytical Data

One soil sample collected from below the tank was submitted for analytical testing. A summary of the results is presented as below. Parameters not shown in the table were not detected in the sample. For comparison, NYSDEC guidance values are also presented.

Parameter	NYSDEC STARS Memo No. 1 Soil Criteria (mg/kg)	Tank 06-74-1 Soil Result (mg/kg)
Bis (2-ethylhexyl) phthalate	NA	0.0038

NA - Not available

A comparison of the detected organics in the soils with the STARs Memo No. 1 indicate that the NYSDEC guidance values were not exceeded.

Tank Decontamination

The tank was cut open and cleaned using speedi-dry and rags. All petroleum residue was removed from the tank. The tank was then shredded to allow for landfilling.

Backfill

After review of the excavation and tank by the SCDHS, the excavation was back filled with excavated soils and clean material from the 110 Sand Company (see Appendix G). The area was rough graded.

Waste Disposal

The concrete pad and cleaned fiberglass tank were taken to Rayson Landfill in Bethpage New York. The tank decontamination residue was drummed and staged at the Fire Training Area, pending analytical results. See Appendix G for concrete, tank, and sludge disposal receipts.

2.5 TRANSPORTATION BUILDING BELOW GROUND STORAGE TANK 06-42-1

Description

One 550-gallon below ground, fiberglass reinforced plastic (FRP) storage tank was used at the Transportation Building to store waste oil from maintenance operations. A sign adjacent to the tank confirmed the tank ID and contents, (see Appendix F for photographs). The tank was located below a concrete pad just east of the Transportation Building.

Based on visible piping, discussions with site personnel, and site observations at the tank, waste oils were placed into a drain inside the building. The drain led to an oil/water separator. The separated oil then flowed into the waste oil tank.

Contents

Tank 06-42-1 was reported to have been emptied and cleaned prior to its "temporarily out of service" status. In March 1998, the oil/water separator leading into the waste oil tank was observed to be full of rain water and the water was overflowing into the waste oil tank. Thirty inches of water were measured to be held in the tank. Approximately 235 gallons of water were

removed from the tank and inventoried at the Fire Training Area. Tank head space readings were indicated as follows.

Organic Vapor Analyzer:	0 ppm
Oxygen:	21.2 %
Lower Explosion Limit Reading:	0 %

Tank Removal

The tank was located below a concrete pad. This pad was removed and then the overlying soils excavated to the tank of the top. As the overlying soils were removed, the soils were evaluated for contamination both visually (staining) and with an OVA. There was no evidence of contamination in the excavated soils. Associated piping was removed to the oil/water separator. The tank was removed intact (see Appendix F).

Once above ground, the tank was visually inspected and found to be free of holes or signs of leaks. The tank excavation activities were observed by the SCDHS and found to be acceptable.

Soil samples were collected from the bottom of the excavation. No odors or stained soils were noted. OVA readings of the soil samples were all 0 ppm. One sample was submitted to Quanterra Laboratory for VOC and SVOC analysis. Results are presented below:

Analytical Data

One soil sample from underneath the tank was submitted for analytical testing. The results are presented as follows. Parameters not shown were not detected. For comparison, NYSDEC guidance values are also presented.

Parameter	NYSDEC STARS Memo No. 1 Soil Criteria (mg/kg)	Tank 06-42-1 Soil Result (mg/kg)
None	NA	None detected

NA - Not applicable.

A comparison of the detected organics in the soils with the STARs Memo No. 1 indicate that the NYSDEC guidance values were not exceeded.

Tank Decontamination

The tank was cut open and cleaned using speedi-dry and rags. All petroleum residue was removed from the tank. The tank was then shredded to allow for landfilling.

Backfill

After review of the excavation and tank by the SCDHS, the excavation was back filled with excavated soils and clean material from the 110 Sand Company (see Appendix G). The area was rough graded.

Waste Disposal

The concrete pad and cleaned fiberglass tank were taken to Rayson Landfill in Bethpage New York. The tank decontamination residue was drummed and staged at the Fire Training Area, pending analytical results. See Appendix G for concrete, tank, and sludge disposal receipts.

2.6 FUEL DEPOT BELOW GROUND STORAGE TANKS 06-12-13, 06-12-14, AND 06-12-15

Description

The Fuel Depot contained three below ground, fiberglass reinforced plastic (FRP) storage tanks which contained diesel and gasoline. The diesel tank (06-12-13) had a capacity of 10,000 gallons and was used to fuel facility vehicles. One gasoline tank (06-12-14) had a capacity of 10,000 gallons. The second gasoline tank (06-12-15) had a capacity of 20,000 gallons. Both gasoline tanks were also used to fuel vehicles.

The Fuel Depot is Site 7 under the Navy's Installation Restoration Program and is currently being investigated to define the nature and extent of fuel contaminated groundwater. A floating free product layer is also known to be present at this site.

A sign at each tank confirmed the tank ID and contents (see Appendix F for photographs). The tanks are located mostly under a gravel area. A portion of the southern edge of the tanks is under concrete. Available tank drawings are presented in Appendix H.

A fuel filter and pump were located on top of the tanks. This equipment was cycled and/or disposed off site.

Contents

Tanks 06-12-13, 06-12-14, and 06-12-15 were reported to have been emptied and cleaned prior to their "temporarily out of service" status.

Tank water levels and head space readings from April 1998 were indicated as follows. The water was removed with a vacuum truck and disposed off site.

Tank 06-12-13

Water level:	5 inches (140 gallons)
Organic Vapor Analyzer:	0 ppm
Oxygen:	21.3 %
Lower Explosion Limit Reading:	0 %

Tank 06-12-14

Water level:	.4 inches (100 gallons)
Organic Vapor Analyzer:	0 ppm
Oxygen:	21.3 %
Lower Explosion Limit Reading:	0 %

Tank 06-12-15

Water level:	6 inches (225 gallons)
Organic Vapor Analyzer:	0 ppm
Oxygen:	20.9 %
Lower Explosion Limit Reading:	0 %

Tank Removal

The tanks were located below gravel and concrete. This pad was removed and then the overlying soils excavated to the top of the tanks. As the overlying soils were removed, the soils were evaluated for contamination both visually (staining) and with an OVA. There was no evidence of contamination in the excavated soils. The tanks were removed intact (see Appendix F).

Once above ground, the tanks were visually inspected and found to be free of holes or signs of leaks. The tank excavation activities were observed by the SCDHS and found to be acceptable.

Three soil samples were collected from the bottom of each tank excavation. No stained soils were noted. Slight odors were noted with the samples collected. OVA readings of the soil samples were mostly 0 ppm, although the OVA reading on one sample peaked at 10 ppm. Three samples for each tank were submitted to Quanterra Laboratory for VOC and SVOC analysis. Results are presented below.

Analytical Data

Soil sample results from underneath the tanks were submitted for analytical testing. A summary of the results is presented below. Parameters not shown in the table were not detected in the samples. For comparison, NYSDEC guidance values are also presented.

Parameter	NYSDEC STARS Memo No. 1 Soil Criteria (mg/kg)	Tank 06-12-13 Soil Result (mg/kg)		
		Sample 1	Sample 2	Sample 3
Methylene chloride	NA			0.0055
Acenaphthene	5,000	0.087J		
Benzo (a) anthracene	0.22	0.45		
Benzo (a) pyrene	0.061	0.45		
Benzo (b) fluoranthene	0.22	0.53		
Benzo (g,h,i) perylene	NA	0.33J		
Benzo (k) fluoranthene	0.22	0.23J		
Chrysene	NA	0.53		
Fluoranthene	3,000	1.0		
Indeno(1,2,3-CD) pyrene	NA	0.31J		
Phenanthrene	NA	0.32J		
Pyrene	2,000	0.88		

Parameter	NYSDEC STARS Memo No. 1 Soil Criteria (mg/kg)	Tank 06-12-14 Soil Result (mg/kg)		
		Sample 1	Sample 2	Sample 3
Toluene	0.1	0.013		
Xylene	0.1	0.0083J		

Parameter	NYSDEC STARS Memo No. 1 Soil Criteria (mg/kg)	Tank 06-12-15 Soil Result (mg/kg)		
		Sample 1	Sample 2	Sample 3
Toluene	0.1	0.11		
Ethylbenzene	0.1	0.59		
Xylene	0.1	2.6E		
2-methylnaphthalene	NA	2.6		

E - Encore samplers were used to collect media. Xylene result exceeded equipment calibration range. As a result, results may be biased low.

NA - Not available

A comparison of the detected organics in the soils with the STARS Memo No. 1 indicate that four polynuclear aromatic hydrocarbons (PAHs) and three VOCs exceed the NYSDEC guidance values. The PAHs are not mobile in the environment and they are not water soluble; therefore, they would not be expected to migrate. In addition, these chemicals are biodegradable, although their degradation rate is relatively slow compared to other petroleum

compounds. The samples were collected at a depth of 12 to 14 feet bgs. Therefore, do not represent a threat to human health.

The VOCs represent potential threats to the groundwater at the site. The groundwater impacts have already been measured and are currently being monitored under activities associated in Site 7. This site will be subject to remediation under the Navy's Installation Restoration Program.

Tank Decontamination

The tanks were observed to be clean when they were removed. As a result, no additional cleaning was required. The tanks were then shredded to allow for landfilling.

Backfill

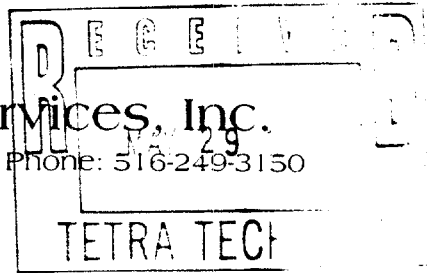
After review of the excavation and tank by the SCDHS, the excavation was back filled with excavated soils and clean material from the 110 Sand Company (see Appendix G). The area was rough graded.

Waste Disposal

The concrete and cleaned fiberglass tank were taken to Rayson Landfill in Bethpage New York. The tank decontamination residue was drummed and staged at the Fire Training Area, before being taken off site for disposal. See Appendix G for concrete, tank, and sludge disposal receipts.

APPENDIX A
COUNTY ACCEPTANCE LETTER

Tyree Brothers Environmental Services, Inc.
208 Route 109, Farmingdale, NY 11735 • Fax: 516-249-3281 • Phone: 516-249-3150



May 26, 1998

Town of Riverhead
Building Department
210 Howell Avenue
Riverhead, NY 11901

Attn: Sharon E. Klos

Re: Northrup-Grumman
Grumman Boulevard
Calverton, NY

Dear Ms. Klos:

Tyree Brothers Environmental Services, Inc. was contracted to perform tank removals at the above referenced site. Building permit No. ZB20317 was issued for this project. The tanks were removed on 3-31-98 and 4-2-98.

Enclosed is a letter from the Suffolk County Department of Health Services indicating that the tanks were properly removed and that no visible ground contamination was within the excavation.

I am requesting that building permit No. ZB 20317 be finalized.

If you have any questions or require additional information, please contact me at 516-249-3150, extension 357.

Sincerely,

A handwritten signature in cursive script that reads "Steven Jacobs".

Steven Jacobs
Project Manager

pc Tetra Tech Nus

COUNTY OF SUFFOLK



ROBERT J. GAFFNEY
SUFFOLK COUNTY EXECUTIVE

DEPARTMENT OF HEALTH SERVICES

May 18, 1998

CLARE B. BRADLEY, M.D., M.P.H.
ACTING COMMISSIONER

To: Steve Jacobs
Larry E. Tyree, Co., Inc.
208 Route 109
Farmingdale, NY 11735

From: Suffolk County Department
Of Health Services
Office of Pollution Control
15 Horseblock Place
Farmingville, NY 11738

Re: Decommissioning of Underground Storage Tanks
SCDHS ID#: 6-0022 File Reference #: 13217

Facility Name: Northrop Grumman E S I S

Facility Address: Wading River Road, Calverton, NY 11933

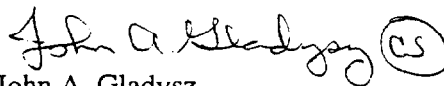
Gentlemen/Madam:

This is to confirm that on 3/31/98 and 4/2/98 a representative of this department witnessed the proper [x] removal / [] abandonment in place of the following above/underground tank(s):

Tank # 52	10,000 Gal.	Diesel
Tank # 53	10,000 Gal.	Gasoline
Tank # 54	20,000 Gal.	Gasoline
Tank # 55	1,000 Gal.	#2 Fuel Oil
Tank #162	550 Gal.	Waste Oil
Tank #163	550 Gal.	Waste Oil

- [X] This required inspection of the tank removal(s) revealed no visible ground contamination within the excavation.
- [] This required inspection of the tank removal(s) revealed ground contamination.
- [] This required inspection of the tank abandonment (s) confirmed that the tank was properly cleaned and filled with sand/concrete. Samples taken from the required groundwater monitoring wells will be analyzed by the NYS DEC and they will notify you of any necessary remedial action.

Very truly yours,


John A. Gladysz
Associate Public Health Sanitarian
Office of Pollution Control

APPENDIX B
PETROLEUM BULK STORAGE APPLICATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILLS MANAGEMENT • BUREAU OF SOURCE CONTROL

PETROLEUM BULK STORAGE APPLICATION

Pursuant to the Petroleum Bulk Storage Law,
Article 17, Title 19 of ECL; 6 NYCRR 612-614 and 6 NYCRR, Subpart 380-14.
(Continued on Reverse Side—Please Be Sure to Complete Section B)

SECTION A—See Instructions on Cover Sheet

FACILITY Indicate Other Existing DEC Numbers, if any, for this Facility. DEC Number: SPDES Number: WQDES Number: TRANSDISPOSITION TYPE: (Check all that apply) (NOTE: Transposition Types 1, 2 and 3 may require a fee.) <input type="checkbox"/> Initial New Facility <input type="checkbox"/> Change of Ownership <input type="checkbox"/> Substantial Tank Modification <input type="checkbox"/> Information Correction <input type="checkbox"/> Renewal	NAME NWIRP, CALVERTON J. A. Jones, Inc.	LOCATION (Not P.O. Box) Mail Stop A-41-03 GRIMMAN BLVD		TYPE OF PETROLEUM FACILITY: (Check all that apply) A. <input type="checkbox"/> Storage Terminal/Petroleum Distributor B. <input type="checkbox"/> Retail Gasoline Sales C. <input type="checkbox"/> Other Retail Sales D. <input type="checkbox"/> Manufacturing E. <input type="checkbox"/> Utility F. <input type="checkbox"/> Trucking/Transportation G. <input type="checkbox"/> Apartment Building H. <input type="checkbox"/> School I. <input type="checkbox"/> Farm J. <input type="checkbox"/> Private Residence K. <input type="checkbox"/> Airline (Air Tank) L. <input type="checkbox"/> Other (Specify) Former U. S. Navy Aviation Fuel Storage			
		LOCATION (Continued) Northrop-Grumman Corporation		CITY/TOWN/VILLAGE Bathpage CALVERTON		STATE NY	ZIP CODE 11714 11933
		COUNTY Suffolk	TOWNSHIP OR CITY RIVERHEAD		NAME OF OPERATOR AT FACILITY Al Taormina		FACILITY TELEPHONE NUMBER (516) 346-0344
		EMERGENCY CONTACT NAME Security FACILITY MANAGER		EMERGENCY CONTACT PHONE NO. (516) 953-6611		I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.	
OWNER <input type="checkbox"/> Individual <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation <input type="checkbox"/> Other	NAME Commander Naval Air Systems Command		ADDRESS (Street and/or P.O. Box) (Same as Correspondence Mailing Below)		NAME OF OWNER OR AUTHORIZED REPRESENTATIVE A. TAORMINA		
	CITY Patuxent River		STATE MD	ZIP CODE 20670-1541		ADDRESS ENCLOSED 0	
	FEDERAL TAX ID NO.		OWNER TELEPHONE NUMBER (301) 757-2128		TITLE Facility Manager		
	TYPE OF OWNER (Check only one) <input type="checkbox"/> Private Resident <input type="checkbox"/> State Government <input type="checkbox"/> Local Government <input checked="" type="checkbox"/> Federal Government <input type="checkbox"/> Corporate/Commercial		SIGNATURE [Signature]		DATE 6/17/98		
COOPERATING AGENCY Longitudinal Location at this Facility, if known: ALTITUDE: DEC MIN SEC LONGITUDE: DEC MIN SEC	ATTENTION Mr. Joe Kaminski		NAME OF COMPANY Commander, Naval Air Systems Command (GOCO)/Environmental		OFFICIAL USE ONLY Page _____ of _____ Date Received: _____ Date Processed: _____ Amount Received \$ _____ Reviewed By: _____		
	ADDRESS Industrial Facilities Branch, Bldg. 404, Suite 200		ADDRESS NAVAIR SYSCOM HQ, 22145 Arnold Circle, Unit 7				
	CITY/STATE/ZIP CODE Patuxent River, Maryland 20670-1541		TELEPHONE NUMBER (301) 757-2128				

86.17.1998 12:17

FROM

PDS NUMBER

Tank Information for Petroleum Bulk Storage Facility

SECTION B—See Instructions on Cover Sheet

Page ____ of ____

Actn	Tank Number	Tank Location	Shape	Construction or Reinforced Concrete				Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Dia.	Tank External Dia.	Tank Height	Floating Location	Floating Type	Floating Internal Dia.	Floating External Dia.	Secondary Containment	Leak Detection	Spill/Overfill Protection	Detector	Last Test Date (Indicate if Tank)	
				(in)	(in)	(in)	(in)															(mm)	(in)
3	06-05-4	1	3	0	4	9	8	275	6	1	0		1	0	0	0	0	0	0	0	2		
3	06-05-5	1	3	0	4	9	8	275	6	1	0		1	0	0	0	0	0	0	0	2		
3	06-12-12	2	3	0	4	9	8	550	9	1	0		1	1	1	0	1	0	0	0	3		
3	06-40-1	4	3	0	3	9	8	1800	3	5	0		0	3	4	0	5	0	0	2	2		
3	06-74-1	4	3	0	3	9	8	550	C	5	0		0	2	3	0	0	0	0	0	2		
3	06-42-1	4	3	0	3	9	8	550	C	5	0		0	2	3	0	0	0	0	0	2		
3	06-12-13	4	3	0	4	9	8	10,000	6	5	0		0	3	3	0	0	0	0	2	2		
3	06-12-14	4	3	0	4	9	8	10,000	2	5	0		0	3	3	0	0	0	0	2	2		
3	06-12-15	4	3	0	4	9	8	20,000	2	5	0		0	3	3	0	0	0	0	2	2		

KEY FOR SECTION B

ACTION

- 1 Initial Listing
- 2 Add Tank
- 3 Change Name Tank
- 4 Information Correction
- 5 Replacement/Repair
- 6 Refill Tank

TANK LOCATION

- 1 Aboveground
- 2 Aboveground on wooden legs, steel, rock, or concrete
- 3 Aboveground 10% or more below ground
- 4 Underground
- 5 Underground, sealed, with access

STATUS

- 1 In-service
- 2 Temporarily out-of-service
- 3 Closed—Removal
- 4 Closed—in Place
- 5 Tank Connected to Non-Regulated Use

PRODUCT STORED

- 0 Empty
- 1 Landed Gasoline
- 2 Unblended Gasoline
- 3 Nos. 1, 2, or 4 Fuel Oil
- 4 Nos. 5 or 6 Fuel Oil
- 5 Kerosene
- 6 Diesel
- A Lube Oil
- B Fuel Oil (Fuel)
- C Lube Oil
- D Other

TANK TYPE

- 1 Sheet/Carbon Steel
- 2 Stainless Steel Alloy
- 3 Concrete
- 4 Fiberglass Reinforced Steel
- 5 Fiberglass Reinforced Plastic (FRP)
- 6 Reinforced Technology
- 7 Other

FLOATING TYPE

- 0 None
- 1 Steeldeck
- 2 Galvanized Steel
- 3 Fiberglass (FRP)
- 4 Copper
- 5 Other

INTERNAL PROTECTION: Tank/Floating

- 0 None
- 1 Epoxy Liner
- 2 Rubber Liner
- 3 Fiberglass Liner (FRP)
- 4 Glass Liner
- 5 Other

EXTERNAL PROTECTION: Tank/Floating

- 0 None
- 1 Painted/Epoxied Coating
- 2 Sacrificial Anode
- 3 Impressed Current
- 4 Fiberglass
- 5 Insulated
- 6 Wrapped/Flooded
- 7 Other

FLOATING LOCATION

- 0 None
- 1 Aboveground

SECONDARY CONTAINMENT

- 0 None
- 1 Vault
- 2 Double-Walled Tank
- 3 Corrosion Liner
- 4 Cut-off Walls
- 5 Impervious Underlayment
- 6 Surface Dike
- 7 Reinforced Steel Cdn
- 8 Concrete Dike
- 9 Synthetic Liner
- 0 Other

LEAK DETECTION

- 0 None
- 1 Interstitial Monitoring
- 2 Vapor Wall
- 3 Groundwater Wall
- 4 In-tank System

SPILL/OVERFILL PROTECTION

- 0 None
- 1 High Level Alarm
- 2 Automatic Shut-off
- 3 Manual Level Gauge
- 4 High Level Alarm
- 5 High Level Alarm
- 6 Other

DETECTOR

- 1 Automatic
- 2 Manual
- 3 Other

ENDING

06.17.1998 12:18

FROM



DEPARTMENT OF THE NAVY
NAVAL AIR SYSTEMS COMMAND
NAVAL AIR SYSTEMS COMMAND HEADQUARTERS
47123 BUSE ROAD, UNIT # 7
PATUXENT RIVER, MD 20670-1547

IN REPLY REFER TO

4862

Ser AIR8.OY2D/3396

DEC 5 1997

NYSDEC - Region 1
NYS SUNY, Building 40
Stony Brook, NY 11790-2356
Attention: Tony Leung

Subj: Cancellation of Major Petroleum License

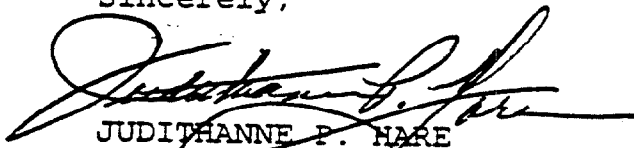
Dear Mr. Leung:

New York State Department of Environmental Conservation (NYSDEC) letter of November 6, 1997 (attached for your convenience) requested a renewal of a Major Petroleum Facility License and provided forms to be updated. Naval Air Systems Command letter to you dated September 29, 1997 (attached for your convenience) confirmed our desire to have License 1-1740 canceled. The Naval Weapons Industrial Reserve Plant at Calverton no longer stores enough petroleum to require a license.

To facilitate the clarification, completion or purging of your records, and to further ensure that the license and all matters pertaining to it are canceled and concluded, the amended application form attached is submitted for your review. Point of contact for this matter is Mr. Joe Kaminski, whose commercial phone number is 301 757-2128.

Please confirm that you have canceled the license.

Sincerely,


JUDITHANNE P. HARE
By Direction

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER • BUREAU OF SPILL PREVENTION AND RESPONSE

APPLICATION FOR MAJOR PETROLEUM FACILITY LICENSE

Pursuant to Article 12 of the Navigation Law and 6 NYCRR 610; 17 NYCRR 30
(Continued on Reverse Side—Please Be Sure to Complete Sections B and C)Please Type or Print Clearly
and Complete All Items

SECTION A—See Instructions on Cover Sheet

LICENSE NUMBER 1-1740 Indicate Other Existing DEC Numbers, if any, for this Facility: CBS Number: SPDES Number: 0-025453	FACILITY	NAME NWIRP Calverton NAVAIRSYS COM (NAVAL AIR SYSTEM COMMAND)		TYPE OF MAJOR FACILITY: Does not meet definition of (Check only one) Major Facility: A. <input type="checkbox"/> Storage Terminal E. <input type="checkbox"/> Railroad B. <input type="checkbox"/> Refinery F. <input type="checkbox"/> Vessel/Barge C. <input type="checkbox"/> Manufacturing G. <input type="checkbox"/> Other (Specify) D. <input type="checkbox"/> Utility	
		LOCATION (Not P.O. Boxes) GRUMMAN BLVD.		PRODUCT TRANSFER OPERATIONS: (Check all that apply) A. <input checked="" type="checkbox"/> Tank Truck D. <input type="checkbox"/> Pipeline B. <input type="checkbox"/> Railroad Car E. <input type="checkbox"/> Other (Specify) C. <input type="checkbox"/> Vessel/Barge (Including off-shore platform)	
		LOCATION (Continued)		AVERAGE DAILY THROUGHPUT (Gallons) TOTAL STORAGE CAPACITY (Gallons) 312,925	
		CITY/TOWN/VILLAGE CALVERTON STATE NY ZIP CODE 11933 COUNTY SUFFOLK TOWNSHIP OR CITY RIVERHEAD NAME OF CONTACT PERSON James W. Hollrith FACILITY TELEPHONE NUMBER 301 CAPT. BEATTIE HOLLRITH (703) 604-1104 757-2166 EMERGENCY CONTACT NAME A1 EMERGENCY CONTACT PHONE NO. CAPT. BEATTIE Taormina (703) 604-1104 45163460344		I hereby certify under penalty of perjury that the information provided on this form is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.	
TRANSACTION TYPE (Check all that apply) Initial/ 1. <input type="checkbox"/> New Facility 2. <input checked="" type="checkbox"/> Change of Ownership 3. <input checked="" type="checkbox"/> Substantial Tank Modification 4. <input checked="" type="checkbox"/> Information Correction 5. <input checked="" type="checkbox"/> Renewal No cancellation	OWNER	NAME NAVAL AIR SYSTEM COMMAND (NAVAIRSYS COM) ADDRESS (Street and/or P.O. Box) 47123 Buse Road 1421 JEFFERSON-DAVIS-HIGHWAY CITY Patuxent River STATE MD ZIP CODE 20670-1547 ARLINGTON VA 22249 FEDERAL TAX ID NO. OWNER TELEPHONE NUMBER 301 (703) 604-1104 757-2166		NAME OF OWNER OR AUTHORIZED REPRESENTATIVE Captain James W. Hollrith TITLE Division Director (ESH&QOL) SIGNATURE <i>01/18/91 JWH</i> DATE 12/5	
		NAME OFFICE OF COUNCIL NAVAL AIR ADDRESS (Street and/or P.O. Box) 47123 Buse Road 1421 JEFFERSON-DAVIS-HIGHWAY CITY Patuxent River STATE MD ZIP CODE 20670-1547 ARLINGTON VA 22249 DATE FILED WITH THE SECRETARY OF STATE		SECTION A COMPLETED A— <input type="checkbox"/> Yes <input type="checkbox"/> No B— <input type="checkbox"/> Yes <input type="checkbox"/> No C— <input type="checkbox"/> Yes <input type="checkbox"/> No	
		NAME NAVAL AIR SYSTEMS COMMAND (NAVAIRSYS COM) ADDRESS 22145 Arnold Circle Unit 7 1421 JEFFERSON-DAVIS-HIGHWAY ADDRESS Building 404 Suite 200 CITY/STATE/ZIP CODE ARLINGTON, VA 22248 Patuxent River, MD 20670-1541		REVIEWED BY:	
		ATTENTION GOCO Program Manager Code 8.0Y2 CAPTAIN STEVE BEATTIE		OFFICIAL USE ONLY DATE RECEIVED: _____ SECTIONS COMPLETED: A— <input type="checkbox"/> Yes <input type="checkbox"/> No B— <input type="checkbox"/> Yes <input type="checkbox"/> No C— <input type="checkbox"/> Yes <input type="checkbox"/> No	
TYPE OF OWNER (Check only one) <input type="checkbox"/> State Government <input type="checkbox"/> Local Government <input checked="" type="checkbox"/> Federal Government <input type="checkbox"/> Corporate/Commercial	LEGISLATIVE	Geographical Locator for this Facility: LATITUDE: 4 0 5 4 2 6 DEG MIN SEC LONGITUDE: 7 2 4 7 3 0		MAILING	
		Geographical Locator for this Facility: LATITUDE: 4 0 5 4 2 6 DEG MIN SEC LONGITUDE: 7 2 4 7 3 0		MAILING	
		Geographical Locator for this Facility: LATITUDE: 4 0 5 4 2 6 DEG MIN SEC LONGITUDE: 7 2 4 7 3 0		MAILING	
		Geographical Locator for this Facility: LATITUDE: 4 0 5 4 2 6 DEG MIN SEC LONGITUDE: 7 2 4 7 3 0		MAILING	

LICENSE NUMBER...

1-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 1 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date				Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date					
				(MO)	(YR)	(MO)	(YR)														(MO)	(YR)				
3	06-1	2	3	0	2	9	6	1,000	6	5	0	0	2	4	0	0	0	0	0	2	4	2				
1	06-01-1	4	1	1	2	8	3	550	6	5	0	0	2	4	0	0	0	0	0	2	4	2				
1	06-02-1	4	1	1	2	5	4	1,000	3	1	0	1	2	1	0	0	0	0	0	4	2	0	9	9	4	
1	06-02-2	2	1	1	2	8	0	275	6	1	0	1	1	1	0	0	8	0	0	0	4	2				
1	06-05-1	4	1	1	2	7	6	1,000	6	1	0	1	2	1	0	0	0	0	0	4	2	1	1	9	5	
1	06-05-4	2	1	1	2	5	4	275	6	1	0	0	1	1	0	0	5	0	0	0	4	2				
1	06-05-5	2	1	1	2	5	4	275	6	1	0	0	1	1	0	0	5	0	0	0	4	2				

KEY FOR SECTION B

ACTION

- 1 Initial Listing
- 2 Add Tank
- 3 Close/Remove Tank
- 4 Information Correction
- 5 Modify Tank

TANK LOCATION

- 1 Aboveground
- 2 Aboveground on crib, rack, or cradle
- 3 Aboveground: 10% or more below ground
- 4 Underground
- 5 Underground, vaulted, with access

STATUS

- 1 In-service
- 2 Temporarily out-of-service
- 3 Closed—Removed
- 4 Closed—In Place
- 5 Tank Converted to Non-Regulated Use

PRODUCT STORED

- 0 Empty
- 1 Leaded Gasoline
- 2 Unleaded Gasoline
- 3 Nos. 1, 2, or 4 Fuel Oil
- 4 Nos. 5 or 6 Fuel Oil
- 5 Kerosene
- 6 Diesel
- 7 Crude Oil
- 8 Asphalt
- 9 Other*

TANK TYPE

- 1 Steel/Carbon Steel
- 2 Stainless Steel Alloy
- 3 Concrete
- 4 Fiberglass Coated Steel
- 5 Fiberglass Reinforced Plastic (FRP)
- 6 Equivalent Technology
- 9 Other*

PIPING TYPE

- 0 None
- 1 Steel/Iron
- 2 Galvanized Steel
- 3 Fiberglass (FRP)
- 4 Copper
- 9 Other*

INTERNAL PROTECTION

- 0 None
- 1 Epoxy Liner
- 2 Rubber Liner
- 3 Fiberglass Liner (FRP)
- 4 Glass Liner
- 9 Other*

EXTERNAL PROTECTION

- 0 None
- 1 Painted/Asphalt Coating
- 2 Sacrificial Anode
- 3 Impressed Current
- 4 Fiberglass
- 5 Jacketed
- 6 Wrapped (Piping)
- 9 Other*

PIPING LOCATION

- 0 None
- 1 Aboveground
- 2 Underground
- 3 Aboveground/Underground Combination

SECONDARY CONTAINMENT

- 0 None
- 1 Vault
- 2 Double-Walled Tank
- 3 Excavation Liner
- 4 Cut-off Walls
- 5 Impervious Underlayment
- 6 Earthen Dike
- 7 Prefabricated Steel Dike
- 8 Concrete Dike
- A Synthetic Liner
- B Natural Liner
- 9 Other

LEAK DETECTION

- 0 None
- 1 Interstitial Monitoring
- 2 Vapor Well
- 3 Groundwater Well
- 4 In-tank System
- 5 Concrete Pad w/Channels
- 6 Double Bottom
- 9 Other*

SPILL/OVERFILL PREVENTION

- 0 None
- 1 Float Vent Valve
- 2 High Level Alarm
- 3 Automatic Shut-off
- 4 Product Level Gauge
- 5 Catch Basin
- 6 Vent Whistle
- 9 Other*

DISPENSER

- 1 Submersible
- 2 Suction
- 3 Gravelly

* If Other, please list on separate sheet including the Tank Number

LICENSE NUMBER:

1-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 2 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date				Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date							
				(MO)	(YR)	(MO)	(YR)														(MO)	(YR)						
1	06-05-6	4	1	1	2	5	4	25,000	3	1	0	1	2	1	0	0	0	0	0	4	0	2	0	7	9	0		
INI 4	06-05-7	1	1	1	2	7	0	250,000 164,000	4	1	0	0	5	3	1	0	0	7	B	0	0	0	4	2	1	1	9	5
1	06-06-1	4	1	1	2	7	9	550	6	1	0	1	0	4	0	0	0	0	0	4	0	2	1	1	9	5		
INI 3	06-07-1	8	INI 3	8	2	9	6	1,000	5	1	0	1	1	1	0	0	0	0	0	0	0	2						
1	06-08-1	4	1	1	2	7	4	550	6	1	0	1	2	4	0	0	0	0	0	4	0	2	0	8	9	3		
1	06-09-1	2	1	1	2	9	5	275	6	1	0	5	1	1	0	0	2	0	4	0	4	2						
INI 1	06-12-8	4	INI 3	0	8	9	7	50,000	9	1	1	1	1	1	0	0	0	0	3	2	4							
INI 3	06-12-9	4	INI 3	0	8	9	7	50,000	9	1	1	1	1	1	0	0	0	0	3	2	4							

KEY FOR SECTION B

ACTION

- 1 Initial Listing
- 2 Add Tank
- 3 Close/Remove Tank
- 4 Information Correction
- 5 Modify Tank

TANK LOCATION

- 1 Aboveground
- 2 Aboveground on crib, rack, or cradle
- 3 Aboveground: 10% or more below ground
- 4 Underground
- 5 Underground, vaulted, with access

STATUS

- 1 In-service
- 2 Temporarily out-of-service
- 3 Closed—Removed
- 4 Closed—In Place
- 5 Tank Converted to Non-Regulated Use

PRODUCT STORED

- 0 Empty
- 1 Leaded Gasoline
- 2 Unleaded Gasoline
- 3 Nos. 1, 2, or 4 Fuel Oil
- 4 Nos. 5 or 6 Fuel Oil
- 5 Kerosene
- 6 Diesel
- 7 Crude Oil
- 8 Asphalt
- 9 Other*

TANK TYPE

- 1 Steel/Carbon Steel
- 2 Stainless Steel Alloy
- 3 Concrete
- 4 Fiberglass Coated Steel
- 5 Fiberglass Reinforced Plastic (FRP)
- 6 Equivalent Technology
- 9 Other*

PIPING TYPE

- 0 None
- 1 Steel/Iron
- 2 Galvanized Steel
- 3 Fiberglass (FRP)
- 4 Copper
- 9 Other*

INTERNAL PROTECTION

- 0 None
- 1 Epoxy Liner
- 2 Rubber Liner
- 3 Fiberglass Liner (FRP)
- 4 Glass Liner
- 9 Other*

EXTERNAL PROTECTION

- 0 None
- 1 Painted/Asphalt Coating
- 2 Sacrificial Anode
- 3 Impressed Current
- 4 Fiberglass
- 5 Jacketed
- 6 Wrapped (Piping)
- 9 Other*

PIPING LOCATION

- 0 None
- 1 Aboveground
- 2 Underground
- 3 Aboveground/Underground Combination

SECONDARY CONTAINMENT

- 0 None
- 1 Vault
- 2 Double-Walled Tank
- 3 Excavation Liner
- 4 Cut-off Walls
- 5 Impervious Underlayment
- 6 Earthen Dike
- 7 Prefabricated Steel Dike
- 8 Concrete Dike
- A Synthetic Liner
- B Natural Liner
- 9 Other

LEAK DETECTION

- 0 None
- 1 Interstitial Monitoring
- 2 Vapor Well
- 3 Groundwater Well
- 4 In-tank System
- 5 Concrete Pad w/Channels
- 6 Double Bottom
- 9 Other*

SPILL/OVERFILL PREVENTION

- 0 None
- 1 Float Vent Valve
- 2 High Level Alarm
- 3 Automatic Shut-off
- 4 Product Level Gauge
- 5 Catch Basin
- 6 Vent Whistle
- 9 Other*

DISPENSER

- 1 Submersible
- 2 Suction
- 3 Gravity

* If Other, please list on separate sheet including the Tank Number

LICENSE NUMBER:

1-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 3 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date				Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date	
				(MO)	(YR)	(MO)	(YR)														(MO)	(YR)
3	06-13-1	4	3	0	2	9	6	275	0	1	0	0	1	1	0	0	0	0	0	4	2	
3	06-14-1	2	3	0	2	9	6	275	5	1	0	0	1	4	0	0	0	0	0	4	2	
4	06-16-5	2	2	1	2	8	0	10,000	0	1	0	0	1	1	0	0	8	0	0	2	4	2
4	06-16-6	2	2	1	2	8	0	10,000	0	1	0	0	1	1	0	0	8	0	0	2	4	2
4	06-16-7	2	2	1	2	8	0	5,000	0	1	0	0	1	1	0	0	8	0	0	2	4	2
4	06-16-8	2	2	1	2	8	0	500	0	1	0	0	1	1	0	0	8	0	0	2	4	3
4	06-24-1	2	2	1	2	6	9	275	0	1	0	0	1	4	0	0	0	0	0	0	2	

KEY FOR SECTION B

ACTION

- Initial Listing
- Add Tank
- Close/Remove Tank
- Information Correction
- Modify Tank

TANK LOCATION

- Aboveground
- Aboveground on crib, rack, or cradle
- Aboveground: 10% or more below ground
- Underground
- Underground, vaulted, with access

STATUS

- In-service
- Temporarily out-of-service
- Closed—Removed
- Closed—In Place
- Tank Converted to Non-Regulated Use

PRODUCT STORED

- Empty
- Leaded Gasoline
- Unleaded Gasoline
- Nos. 1, 2, or 4 Fuel Oil
- Nos. 5 or 6 Fuel Oil
- Kerosene
- Diesel
- Crude Oil
- Asphalt
- Other*

TANK TYPE

- Steel/Carbon Steel
- Stainless Steel Alloy
- Concrete
- Fiberglass Coated Steel
- Fiberglass Reinforced Plastic (FRP)
- Equivalent Technology
- Other*

PIPING TYPE

- None
- Steel/Iron
- Galvanized Steel
- Fiberglass (FRP)
- Copper
- Other*

INTERNAL PROTECTION

- None
- Epoxy Liner
- Rubber Liner
- Fiberglass Liner (FRP)
- Glass Liner
- Other*

EXTERNAL PROTECTION

- Painted/Asphalt Coating
- Sacrificial Anode
- Impressed Current
- Fiberglass
- Jacketed
- Wrapped (Piping)
- Other*

PIPING LOCATION

- None
- Aboveground
- Underground
- Aboveground/Underground Combination

SECONDARY CONTAINMENT

- None
- Vault
- Double-Walled Tank
- Excavation Liner
- Cut-off Walls
- Impervious Underlayment
- Earthen Dike
- Prefabricated Steel Dike
- Concrete Dike
- Synthetic Liner
- Natural Liner
- Other

LEAK DETECTION

- None
- Interstitial Monitoring
- Vapor Well
- Groundwater Well
- In-tank System
- Concrete Pad w/Channels
- Double Bottom

SPILL/OVERFILL PREVENTION

- None
- Float Vent Valve
- High Level Alarm
- Automatic Shut-off
- Product Level Gauge
- Catch Basin
- Vent Whistle
- Other*

DISPENSER

- Submersible
- Suction
- Gravity

* If Other, please list on separate sheet including the Tank Number

LICENSE NUMBER:

I-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 4 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date			Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date	
				(MO)	(YR)	(YR)														(MO)	(YR)
4	06-40-1	4	2	1	2	8	3	1,000	5	0	0	2	4	0	0	0	0	0	2	4	2
4	06-42-1	4	2	1	2	8	0	550	5	0	0	2	4	0	0	0	0	2	0	4	2
1	06-43-1	4	1	1	2	7	0	1,000	3	1	0	1	2	1	0	0	0	0	4	2	0
4	06-43-3	2	2	1	2	8	4	6,000	1	0	0	1	1	0	0	8	0	0	2	4	2
1	06-43-4	4	1	0	4	9	2	550	6	4	0	4	2	4	0	5	2	1	2	5	2
1	06-64-1	4	1	1	2	8	2	1,000	3	5	0	0	2	2	0	0	0	3	0	4	2
4	06-74-1	4	2	1	2	8	3	550	5	0	0	2	2	0	0	0	0	3	0	4	2

KEY FOR SECTION B

ACTION

- 1 Initial Listing
- 2 Add Tank
- 3 Close/Remove Tank
- 4 Information Correction
- 5 Modify Tank

TANK LOCATION

- 1 Aboveground
- 2 Aboveground on crib, rack, or cradle
- 3 Aboveground: 10% or more below ground
- 4 Underground
- 5 Underground, vaulted, with access

STATUS

- 1 In-service
- 2 Temporarily out-of-service
- 3 Closed—Removed
- 4 Closed—In Place
- 5 Tank Converted to Non-Regulated Use

PRODUCT STORED

- 0 Empty
- 1 Leaded Gasoline
- 2 Unleaded Gasoline
- 3 Nos. 1, 2, or 4 Fuel Oil
- 4 Nos. 5 or 6 Fuel Oil
- 5 Kerosene
- 6 Diesel
- 7 Crude Oil
- 8 Asphalt
- 9 Other*

TANK TYPE

- 1 Steel/Carbon Steel
- 2 Stainless Steel Alloy
- 3 Concrete
- 4 Fiberglass Coated Steel
- 5 Fiberglass Reinforced Plastic (FRP)
- 6 Equivalent Technology
- 9 Other*

PIPING TYPE

- 0 None
- 1 Steel/Iron
- 2 Galvanized Steel
- 3 Fiberglass (FRP)
- 4 Copper
- 9 Other*

INTERNAL PROTECTION

- 0 None
- 1 Epoxy Liner
- 2 Rubber Liner
- 3 Fiberglass Liner (FRP)
- 4 Glass Liner
- 9 Other*

EXTERNAL PROTECTION

- 0 None
- 1 Painted/Asphalt Coating
- 2 Sacrificial Anode
- 3 Impressed Current
- 4 Fiberglass
- 5 Jacketed
- 6 Wrapped (Piping)
- 9 Other*

PIPING LOCATION

- 0 None
- 1 Aboveground
- 2 Underground
- 3 Aboveground/Underground Combination

SECONDARY CONTAINMENT

- 0 None
- 1 Vault
- 2 Double-Walled Tank
- 3 Excavation Liner
- 4 Cut-off Walls
- 5 Impervious Underlayment
- 6 Earthen Dike
- 7 Prefabricated Steel Dike
- 8 Concrete Dike
- A Synthetic Liner
- B Natural Liner
- 9 Other

LEAK DETECTION

- 0 None
- 1 Interstitial Monitoring
- 2 Vapor Well
- 3 Groundwater Well
- 4 In-tank System
- 5 Concrete Pad w/Channels
- 6 Double Bottom

SPILL/OVERFILL PREVENTION

- 0 None
- 1 Float Vent Valve
- 2 High Level Alarm
- 3 Automatic Shut-off
- 4 Product Level Gauge
- 5 Catch Basin
- 6 Vent Whistle
- 9 Other*

DISPENSER

- 1 Submersible
- 2 Suction
- 3 Gravity

* If Other, please list on separate sheet including the Tank Number

LICENSE NUMBER

1-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 5 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date			Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date						
				(MO)	(YR)	(MO)														(YR)						
1	07-01-2	4	1	1	2	6	9	1,000	6	1	0	1	2	1	0	0	0	0	0	4	2	0	8	9	3	
1 3	07-01-3	4	1 3	1 0	2 2	6 9	6	4,000	6	1	0	1	2	1	0	0	0	0	0	4	2	0	8	9	3	
1	07-04-2	4	1	0	4	9	2	2,000	3	4	0	2	4	2	4	0	5	2	1	2	4	2	1	1	9	5
1	07-05-3	2	1	0	4	9	2	550	6	1	0	1	1	1	0	1	8	0	2	4	2					
1	07-05-4	4	1	0	4	9	2	10,000	6	4	0	4	2	4	0	5	2	1	2	5	2	1	1	9	5	
1	07-06-1	4	1	1	2	5	9	4,000	3	1	0	1	2	1	0	0	0	0	0	4	2	1	0	9	5	
1	07-06-2	4	1	1	2	5	9	6,700	3	1	0	1	2	1	0	0	0	0	0	4	2	1	0	9	5	

KEY FOR SECTION B

ACTION

- Initial Listing
- Add Tank
- Close/Remove Tank
- Information Correction
- Modify Tank

TANK LOCATION

- Aboveground
- Aboveground on crib, rack, or cradle
- Aboveground: 10% or more below ground
- Underground
- Underground, vaulted, with access

STATUS

- In-service
- Temporarily out-of-service
- Closed—Removed
- Closed—In Place
- Tank Converted to Non-Regulated Use

PRODUCT STORED

- Empty
- Leaded Gasoline
- Unleaded Gasoline
- Nos. 1, 2, or 4 Fuel Oil
- Nos. 5 or 6 Fuel Oil
- Kerosene
- Diesel
- Crude Oil
- Asphalt
- Other*

TANK TYPE

- Steel/Carbon Steel
- Stainless Steel Alloy
- Concrete
- Fiberglass Coated Steel
- Fiberglass Reinforced Plastic (FRP)
- Equivalent Technology
- Other*

PIPING TYPE

- None
- Steel/Iron
- Galvanized Steel
- Fiberglass (FRP)
- Copper
- Other*

INTERNAL PROTECTION

- None
- Epoxy Liner
- Rubber Liner
- Fiberglass Liner (FRP)
- Glass Liner
- Other*

EXTERNAL PROTECTION

- None
- Painted/Asphalt Coating
- Sacrificial Anode
- Impressed Current
- Fiberglass
- Jacketed
- Wrapped (Piping)
- Other*

PIPING LOCATION

- None
- Aboveground
- Underground
- Aboveground/Underground Combination

SECONDARY CONTAINMENT

- None
- Vault
- Double-Walled Tank
- Excavation Liner
- Cut-off Walls
- Impervious Underlayment
- Earthen Dike
- Prefabricated Steel Dike
- Concrete Dike
- Synthetic Liner
- Natural Liner
- Other

LEAK DETECTION

- None
- Interstitial Monitoring
- Vapor Well
- Groundwater Well
- In-tank System
- Concrete Pad w/Channels
- Double Bottom
- Other*

SPILL/OVERFILL PREVENTION

- None
- Float Vent Valve
- High Level Alarm
- Automatic Shut-off
- Product Level Gauge
- Catch Basin
- Vent Whistle
- Other*

DISPENSER

- Submersible
- Suction
- Gravity

* If Other, please list on separate sheet including the Tank Number

LICENSE NUMBER:

1-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 6 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date				Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date				
				(MO)	(YR)	(MO)	(YR)														(MO)	(YR)			
1	07-06-3	4	1	1	2	5	9	6,700	3	1	0	1	2	1	0	0	0	0	0	4	2	1	0	9	5
3	07-24-1	4	3	0	2	9	6	5,000	3	1	0	0	2	1	0	0	0	0	0	4	2	0	6	9	2
1	07-36-1	4	1	1	2	7	4	5,000	3	1	0	1	2	1	0	0	0	0	0	4	2	0	6	9	2
3	07-40-1	4	3	0	2	9	6	5,000	3	1	0	0	2	1	0	0	0	0	0	4	2	0	6	9	2
1	07-65-1	4	1	1	2	8	6	6,000	3	5	0	0	2	4	0	0	2	1	2	4	2				
4	Tank owned by Northrop Grumman Corporation - do not list under Naval Air Systems Command																								
4	08-01-1	4	1	1	2	6	2	8,000	4	1	0	1	2	1	0	0	0	0	0	4	2	0	6	9	1
4	Tank owned by Northrop Grumman Corporation - do not list under Naval Air Systems Command																								
4	08-01-2	4	1	1	2	6	2	8,000	4	1	0	1	2	1	0	0	0	0	0	4	2	0	6	9	1

KEY FOR SECTION B

ACTION

- Initial Listing
- Add Tank
- Close/Remove Tank
- Information Correction
- Modify Tank

TANK LOCATION

- Aboveground
- Aboveground on crib, rack, or cradle
- Aboveground: 10% or more below ground
- Underground
- Underground, vaulted, with access

STATUS

- In-service
- Temporarily out-of-service
- Closed—Removed
- Closed—In Place
- Tank Converted to Non-Regulated Use

PRODUCT STORED

- Empty
- Leaded Gasoline
- Unleaded Gasoline
- Nos. 1, 2, or 4 Fuel Oil
- Nos. 5 or 6 Fuel Oil
- Kerosene
- Diesel
- Crude Oil
- Asphalt
- Other*

TANK TYPE

- Steel/Carbon Steel
- Stainless Steel Alloy
- Concrete
- Fiberglass Coated Steel
- Fiberglass Reinforced Plastic (FRP)
- Equivalent Technology
- Other*

PIPING TYPE

- None
- Steel/Iron
- Galvanized Steel
- Fiberglass (FRP)
- Copper
- Other*

INTERNAL PROTECTION

- None
- Epoxy Liner
- Rubber Liner
- Fiberglass Liner (FRP)
- Glass Liner
- Other*

EXTERNAL PROTECTION

- None
- Painted/Asphalt Coating
- Sacrificial Anode
- Impressed Current
- Fiberglass
- Jacketed
- Wrapped (Piping)
- Other*

PIPING LOCATION

- None
- Aboveground
- Underground
- Aboveground/Underground Combination

SECONDARY CONTAINMENT

- None
- Vault
- Double-Walled Tank
- Excavation Liner
- Cut-off Walls
- Impervious Underlayment
- Earthen Dike
- Prefabricated Steel Dike
- Concrete Dike
- Synthetic Liner
- Natural Liner
- Other

LEAK DETECTION

- None
- Interstitial Monitoring
- Vapor Well
- Groundwater Well
- In-tank System
- Concrete Pad w/Channels
- Double Bottom

SPILL/OVERFILL PREVENTION

- None
- Float Vent Valve
- High Level Alarm
- Automatic Shut-off
- Product Level Gauge
- Catch Basin
- Vent Whistle
- Other*

DISPENSER

- Submersible
- Suction
- Gravity

* If Other, please list on separate sheet including the Tank Number

LICENSE NUMBER:

1-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 7 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date		Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date			
				(MO)	(YR)														(MO)	(YR)		
IV 4	08-01-4 Tank owned by Northrop Grumman Corporation - do not list under Naval Air Systems Command	4	1	1	2	8	6	1,000	6	5	0	0	2	4	0	0	2	1	2	4	2	
IV 4	08-01-5 Tank owned by Northrop Grumman Corporation - do not list under Naval Air Systems Command	2	1	1	2	8	7	275	6	1	0	0	1	1	0	0	8	0	0	0	4	2
IV 4	78-01-1 Tank owned by Northrop Grumman Corporation - do not list under Naval Air Systems Command	4	1	1	2	8	8	6,000	6	5	0	0	2	4	0	0	2		2	4	2	
1	81-01-1	2	1	1	2	8	7	250	6	1	0	0	1	1	0	1	7	0	4	0	2	
III 3	06-12-10	4	III 3	0	8	9	7	50,000	9	1	1	1	1	1	0	0	0	0	5	2	4	2
IV 4	06-12-12	2	IV 2	1	2	7	7	550	0	1	0	0	2	1	0	0	0	0	0	0	2	2
IV 4	06-12-13	4	IV 2	1	2	8	3	10,000	0	5	0	0	2	1	0	0	0	0	3	0	4	2
																			1	1	9	5

KEY FOR SECTION B

ACTION

- 1 Initial Listing
- 2 Add Tank
- 3 Close/Remove Tank
- 4 Information Correction
- 5 Modify Tank

TANK LOCATION

- 1 Aboveground
- 2 Aboveground on crib, rack, or cradle
- 3 Aboveground: 10% or more below ground
- 4 Underground
- 5 Underground, vaulted, with access

STATUS

- 1 In-service
- 2 Temporarily out-of-service
- 3 Closed—Removed
- 4 Closed—In Place
- 5 Tank Converted to Non-Regulated Use

PRODUCT STORED

- 0 Empty
- 1 Leaded Gasoline
- 2 Unleaded Gasoline
- 3 Nos. 1, 2, or 4 Fuel Oil
- 4 Nos. 5 or 6 Fuel Oil
- 5 Kerosene
- 6 Diesel
- 7 Crude Oil
- 8 Asphalt
- 9 Other*

TANK TYPE

- 1 Steel/Carbon Steel
- 2 Stainless Steel Alloy
- 3 Concrete
- 4 Fiberglass Coated Steel
- 5 Fiberglass Reinforced Plastic (FRP)
- 6 Equivalent Technology
- 9 Other*

PIPING TYPE

- 0 None
- 1 Steel/Iron
- 2 Galvanized Steel
- 3 Fiberglass (FRP)
- 4 Copper
- 9 Other*

INTERNAL PROTECTION

- 0 None
- 1 Epoxy Liner
- 2 Rubber Liner
- 3 Fiberglass Liner (FRP)
- 4 Glass Liner
- 9 Other*

EXTERNAL PROTECTION

- 0 None
- 1 Painted/Asphalt Coating
- 2 Sacrificial Anode
- 3 Impressed Current
- 4 Fiberglass
- 5 Jacketed
- 6 Wrapped (Piping)
- 9 Other*

PIPING LOCATION

- 0 None
- 1 Aboveground
- 2 Underground
- 3 Aboveground/Underground Combination

SECONDARY CONTAINMENT

- 0 None
- 1 Vault
- 2 Double Walled Tank
- 3 Excavation Liner
- 4 Cut-off Walls
- 5 Impervious Underlayment
- 6 Earthen Dike
- 7 Prefabricated Steel Dike
- 8 Concrete Dike
- A Synthetic Liner
- B Natural Liner
- 9 Other

LEAK DETECTION

- 0 None
- 1 Interstitial Monitoring
- 2 Vapor Well
- 3 Groundwater Well
- 4 In tank System
- 5 Concrete Pad w/Channels
- 6 Double Bottom
- 9 Other*

SPILL/OVERFILL PREVENTION

- 0 None
- 1 Float Vent Valve
- 2 High Level Alarm
- 3 Automatic Shut-off
- 4 Product Level Gauge
- 5 Catch Basin
- 6 Vent Whistle
- 9 Other*

DISPENSER

- 1 Submersible
- 2 Suction
- 3 Gravity

* If Other, please list on separate sheet including the Tank Number

LICENSE NUMBER:

1-1740

Tank Information for Major Petroleum Facility

SECTION B—See Instructions on Cover Sheet

Page 8 of 8

Action	Tank Number	Tank Location	Status	Installation or Permanent Closure Date				Capacity (Gallons)	Product Stored	Tank Type	Tank Internal Prot.	Tank External Protection	Piping Location	Piping Type	Piping Internal Prot.	Piping External Protection	Secondary Containment	Leak Detection	Spill/Overfill Prevention	Dispenser	Last Test (Underground) or Inspection (Aboveground) Date					
				(MO)	(YR)	(MO)	(YR)														(MO)	(YR)				
1111 4	06-12-14	4	1111 2	1	2	8	3	10,000	1111 0	5	0	0	2	1	0	0	0	0	3	0	4	2	1	1	9	5
1111 4	06-12-15	4	1111 2	1	2	8	3	20,000	1111 0	5	0	0	2	1	0	0	0	0	3	0	4	2	1	1	9	5
1111 3	06-12-16	1	1111 4	0	7	9	6	500,000	1111 0	1	0	0	1	1	0	0	5	7	0	0	2	4	2			
1111 3	06-12-17	1	1111 4	0	7	9	6	500,000	1111 0	1	0	0	1	1	0	0	5	7	0	0	2	4	2			
																							</			

KEY FOR SECTION B

ACTION
 1 Initial Listing
 2 Add Tank
 3 Close/Remove Tank
 4 Information Correction
 5 Modify Tank

TANK LOCATION
 1 Aboveground
 2 Aboveground on crib, rack, or cradle
 3 Aboveground: 10% or more below ground
 4 Underground
 5 Underground, vaulted, with access

STATUS

1 In-service
 2 Temporarily out-of-service
 3 Closed—Removed
 4 Closed—In Place
 5 Tank Converted to Non-Regulated Use

PRODUCT STORED

0 Empty
 1 Leaded Gasoline
 2 Unleaded Gasoline
 3 Nos. 1, 2, or 4 Fuel Oil
 4 Nos. 5 or 6 Fuel Oil
 5 Kerosene
 6 Diesel
 7 Crude Oil
 8 Asphalt
 9 Other*

TANK TYPE

1 Steel/Carbon Steel
 2 Stainless Steel Alloy
 3 Concrete
 4 Fiberglass Coated Steel
 5 Fiberglass Reinforced Plastic (FRP)
 6 Equivalent Technology
 9 Other*

PIPING TYPE

0 None
 1 Steel/Iron
 2 Galvanized Steel
 3 Fiberglass (FRP)
 4 Copper
 9 Other*

INTERNAL PROTECTION

0 None
 1 Epoxy Liner
 2 Rubber Liner
 3 Fiberglass Liner (FRP)
 4 Glass Liner
 9 Other*

EXTERNAL PROTECTION

0 None
 1 Painted/Asphalt Coating
 2 Sacrificial Anode
 3 Impressed Current
 4 Fiberglass
 5 Jacketed
 6 Wrapped (Piping)
 9 Other*

PIPING LOCATION

0 None
 1 Aboveground
 2 Underground
 3 Aboveground/Underground Combination

SECONDARY CONTAINMENT

0 None
 1 Vault
 2 Double-Walled Tank
 3 Excavation Liner
 4 Cut-off Walls
 5 Impervious Underlayment
 6 Earthen Dike
 7 Prefabricated Steel Dike
 8 Concrete Dike
 9 Synthetic Liner
 0 Natural Liner
 9 Other*

LEAK DETECTION

0 None
 1 Interstitial Monitoring
 2 Vapor Well
 3 Groundwater Well
 4 In-tank System
 5 Concrete Pad w/Channels
 6 Double Bottom

SPILL/OVERFILL PREVENTION

0 None
 1 Float Vent Valve
 2 High Level Alarm
 3 Automatic Shut-off
 4 Product Level Gauge
 5 Catch Basin
 6 Vent Whistle
 9 Other*

DISPENSER

1 Submersible
 2 Suction
 3 Gravity

* If Other, please list on separate sheet including the Tank Number

SECTION C

(See Instructions on Cover Sheet)

INITIAL/NEW FACILITY AND CHANGE OF OWNERSHIP APPLICATIONS ONLY

APPLICANT, PLEASE CHECK APPROPRIATE BOX FOR QUESTIONS 1 THRU 6 AND ATTACH OR INSERT INFORMATION AS REQUIRED

- | | Yes | No | |
|----|--------------------------|--------------------------|--|
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | Does this facility have a federal spill prevention control and countermeasure (SPCC) plan? If Yes, please attach a copy. If No, please see instructions. |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | Does this facility have an operations manual on file with the U.S. Coast Guard? If yes, please attach a copy. If No, please see instructions. |
| 3. | <input type="checkbox"/> | <input type="checkbox"/> | In addition to 1 and 2 above, does this facility have a plan for the prevention of petroleum spills or discharges? If so, please attach a copy. |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | Does this facility have a separate clean-up and removal plan? Please see instructions and attach a copy. |
| 5. | <input type="checkbox"/> | <input type="checkbox"/> | Are plans referenced in questions 1 through 4 above fully implemented? If not, indicate anticipated date for complete implementation. _____
DATE |
| 6. | <input type="checkbox"/> | <input type="checkbox"/> | Has this facility experienced a spill or an uncontrolled discharge during the past five years? If so, please see instructions. |

RENEWAL APPLICATIONS ONLY

APPLICANT, PLEASE CHECK APPROPRIATE BOX FOR QUESTIONS 7 THROUGH 9 AND ATTACH OR INSERT INFORMATION AS REQUIRED

- | | Yes | No | |
|----|--------------------------|--------------------------|--|
| 7. | <input type="checkbox"/> | <input type="checkbox"/> | Has the facility experienced a spill or an uncontrolled discharge during the past year? If so, please see instructions. |
| 8. | <input type="checkbox"/> | <input type="checkbox"/> | Have any major additions or changes to the structure or equipment of the facility been made within the past year which would materially affect the potential for a petroleum discharge? If yes, please see instructions and attach requested information. |
| 9. | <input type="checkbox"/> | <input type="checkbox"/> | Has the facility's federal SPCC plan, U.S. Coast Guard Operations Manual, and/or other spill control plans submitted for initial licensing been amended or otherwise changed during the past year? Please see instructions and attach requested information. |

ALL APPLICATIONS

APPLICANT, PLEASE CHECK APPROPRIATE BOX FOR QUESTIONS 10 THROUGH 16 AND ATTACH OR INSERT INFORMATION AS REQUIRED

- | | Yes | No | |
|-----|--------------------------|-------------------------------------|---|
| 10. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | This facility is no longer a Major Petroleum Facility subject to these rqmts
Does this facility have any uncorrected violations cited by the U.S. Coast Guard and/or the U.S. Environmental Protection Agency? If so, please attach an explanation. |
| 11. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is a general site plan included in the submitted plan(s)? If not, please attach a copy.
If yes, specify plan and page. _____ |
| 12. | <input type="checkbox"/> | <input type="checkbox"/> | Does the submitted plan(s) indicate how petroleum spills or discharges are prevented from contaminating groundwaters?
If not please see instructions. If yes, specify plan and page. _____ |
| 13. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is this facility a member of a discharge clean-up organization or cooperative? If so, please enter name and address of organization, and attach a copy of the agreement.

NAME ADDRESS |
| 14. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does this facility contract for discharge clean-up services? If so, please enter name and address of contractor.

NAME ADDRESS |
| 15. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does this facility dispose of petroleum contaminated wastes (debris, dirt, sludges, sorbents, waste oil, etc.) off site?
If so, please enter name and address of company(s) and the location(s) of disposal site(s).

NAME ADDRESS SITE LOCATION |
| 16. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does the submitted plan(s) show compliance with 6 NYCRR 613.2-613.9, Handling and Storage of Petroleum and 6 NYCRR 614.2-614.14, Standards for New and Substantially Modified Petroleum Storage Facilities?
If not, please indicate anticipated date for compliance. _____
DATE |

APPENDIX C
FIELD NOTES/WORK PLAN

WORK PLAN ADDENDUM FOR TANK REMOVAL ACTIVITIES
PHASE 2 RCRA FACILITY INVESTIGATION
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT CALVERTON
CALVERTON, NEW YORK

1.0 INTRODUCTION

This Work Plan Addendum has been prepared under Contract Task Order 0270 by CF Braun under the Comprehensive Long-Term Environmental Action Navy Contract N62472-90-D-1298. This purpose of this plan is to describe field activities to be performed as part of a Phase 2 Resource Conservation and Recovery Act Facility Investigation at the Naval Weapons Industrial Reserve Plant, Calverton New York. The scope of is to remove 6 underground, 6 above ground tanks, and approximately 20 empty steel drums at the facility. Figure 1 presents the location of the tanks.

Available information on the tanks is as follows.

Tank ID	Former Contents	Location	Size (gallons)	Materials of Construction	Comments
06-74-1 ¹	Waste Oil	Machine Shop	550	FRP	UST
06-42-1 ¹	Waste Oil	Transportation Bldg	550	FRP	UST
06-40-1 ¹	No. 2 Oil	Gun Butts	1,000	FRP	UST
06-12-13	Diesel	Fuel Depot	10,000	FRP	UST
06-12-14	Gasoline	Fuel Depot	10,000	FRP	UST
06-12-15	Gasoline	Fuel Depot	20,000	FRP	UST
06-12-12	JP-5	Fuel Depot	550	Steel	AST
20 drums	Soils	Fire Training Area	55	Steel	drums
3 tanks	Water	Fire Training Area	2500	plastic	AST
2	Fuel Oil	Steam Plant	275	Steel	AST

1. Tanks shown are to removed first. Tanks and drummed soils (if any) are to be consolidated at the Fuel Depot Area as soon as possible.

The subcontractor performing the actual tank removal, decontamination, and disposal will be Tyree Brothers Environmental Services, Inc. of Farmingdale New York. Tyree's Work Plan is included as Attachment 1. CF Braun collect soil samples and document compliance with the subcontractors Work Plan.

2.0 SCOPE OF WORK

Tyree will conduct the excavation, removal, and disposal of the tanks listed above. During excavation, CF Braun will conduct full time oversight of the subcontractor and collect confirmatory testing. Sample collection and testing are presented at follows.

Tank Number	Field Samples		QA/QC Samples ¹		Total Samples	
	VOCs	SVOCs	VOCs	SVOCs	VOCs	SVOCs
06-74-1 ¹	1	1	1	0	2	1
06-42-1 ¹	1	1	1	0	2	1
06-40-1 ¹	1	1	0	0	1	1
06-12-13	3	3	1	0	4	3
06-12-14	3	3	1	0	4	3
06-12-15	3	3	1	0	4	3
06-12-12	0	0	0	0	0	0
Total	12	12	5	0	17	12

1. One trip blank will be collected per sample day. Sampling is expected to occur over 5 non continuous days.

The samples will be submitted to Quanterra for VOC and SVOC analysis.

During the excavation, soils are to be checked by the subcontractor, CF Braun, and the Suffolk County inspector (if present). Soils which are identified as contaminated will be segregated from other soils. Uncontaminated soils will be placed back into the excavation after tank removal and contaminated soil removal.

For tanks at the Machine Shop, Gun Butt, and Transportation Building, Tyree will remove all contaminated soils. If a relatively small volume of contaminated soil is found (approximately 2 cubic yards or less), then the contaminated soils will be placed in drums and transported to the

Fuel Depot. If a larger volume of contaminated soil is found, then Tyree will place it in a pile beside the excavation and cover it with plastic. Once the nature of soil contamination is defined, soil testing and disposal will be addressed under a separate action. After approval by the county inspector, the excavations will be filled with clean soil.

For tanks at the Fuel Depot, soil at a depth of greater than 14 feet below ground surface is known to contain petroleum. These soils are being addressed under a separate program. Therefore, soil excavations at the Fuel Depot will only be conducted as needed to remove the tanks. Contaminated soils will be placed beside the excavation and covered with plastic.

The subcontractor will collect, transport, and reuse or recycle tanks, drums, and piping as possible. Prior to taking the materials off site, the tanks will need to be inspected by the Suffolk County inspector.

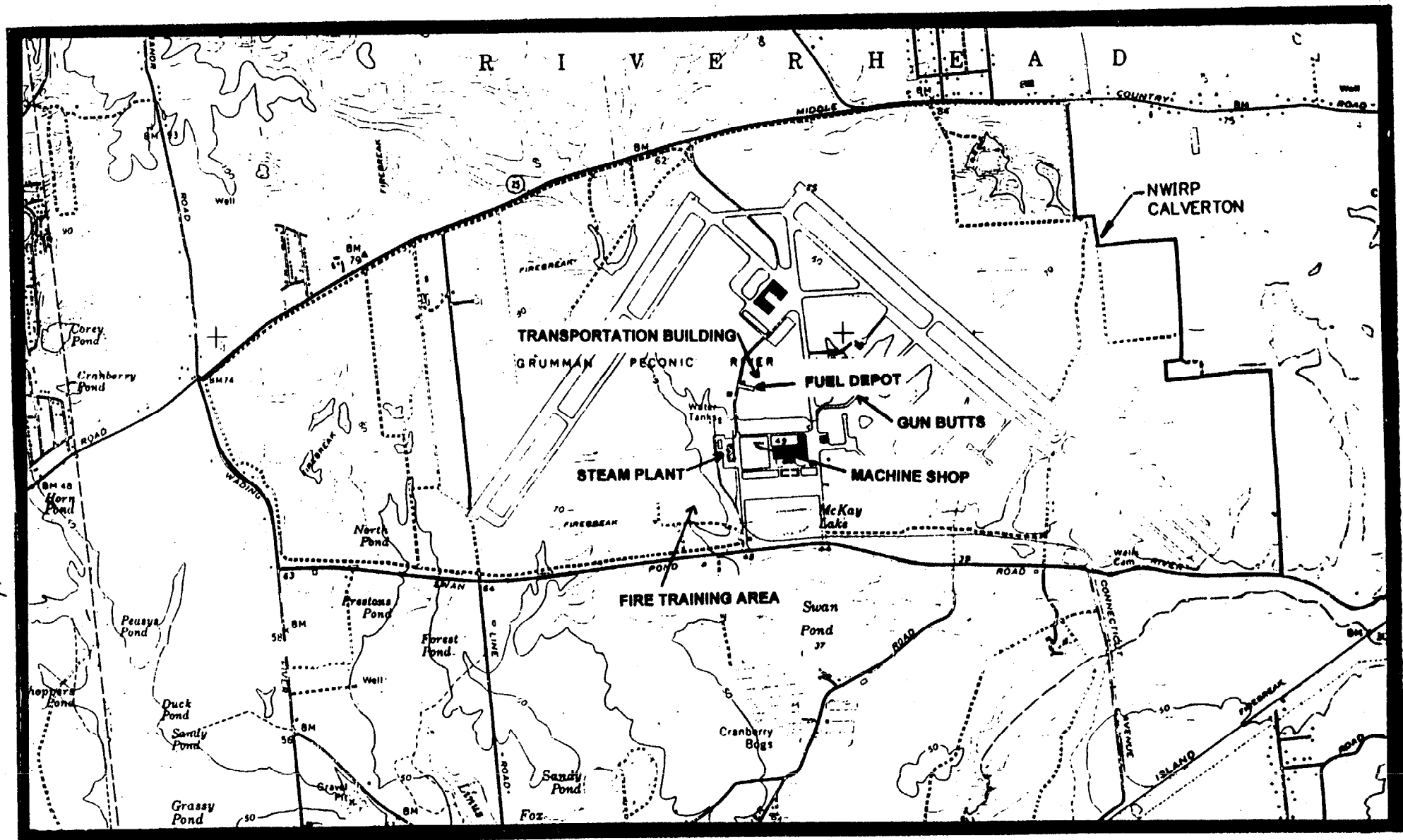
The Suffolk County inspector will need to view the excavation prior to backfilling. The subcontractor will backfill the excavations with clean soil from the excavation and with certified clean fill from off site sources in the form of a letter from the supplier.

Site will be restored to grade with fill material. However, seeding, top soil, and mulching is not required.

3.0 SCHEDULE

The schedule is as follows.

Activity	Start Date	End Date
Notice to Proceed	-	03/24/98
Work Plan	-	03/25/98
Tanks 06-74-1, 06-42-1, and 06-40-1 and Associated Contaminated Soils Removed and Consolidated at Fuel Depot ¹	03/30/98	03/31/98
Other Tanks Removed, completion of all Site Activities	03/30/98	04/08/98
Post Closure Report	04/08/98	05/08/98



USGS QUADRANGLE: WADING RIVER 1967

FIGURE 1

SITE LOCATION



C.F. BRAUN

ATTACHMENT 1
TYREE'S WORK PLAN

Tyree Brothers Environmental Services, Inc.
208 Route 109, Farmingdale, NY 11735 · Fax: 516-249-3281 · Phone: 516-249-3150

March 23, 1998

Mr. Daniel J. Braccia
Tetra Tech NUS, Inc.
600 Clark Avenue
Suite 3
King of Prussia, PA 19406-1433

Mr. David Brayack
Tetra Tech NUS, Inc.
Foster Plaza VII
661 Anderson Drive
Pittsburgh, PA 15220-2745

Dear Mr. Braccia and Mr. Brayack:

This letter is to inform you of the additional waste disposal scenarios and fill sources you have requested .

Clean Fill

Will be provided by 110 Sand Company. Enclosed is a copy of the NYS DOT engineer's report of fill certification.

Address: 110 Cabot Street
West Babylon, NY 11704
Contact: Marie Tramontana
(516) 249-4108

Disposal of Fiberglass, Plastic Tanks and Concrete

Will be disposed at 110 Sand Company Landfill. Enclosed is a copy of the NYSDEC operating permit.

Address and Contact: See above.

* Company Contacts:

Joe Pisel
Project Manager
208 Route 109
Farmingdale, NY 11735
(516) 249-3150 x 280

(Alt) John Szymanski
Sr. Environmental Estimator
208 Route 109
Farmingdale, NY 11735
(516) 249-3150 x 371

* Field Crew:

1. Crew Chief - Cliff Keller
2. 2nd Man - John Martin
3. 3rd Man - Neville Josephs

* Past Performance

1. Owner: Northrop Grumman Corporation
1111 Stewart Avenue
Bethpage, NY

Type: UST Removal and Tank Tightness Testing

Location: NWIRP Calverton, NY
Bethpage, NY

Dates: 1994 - Present

Cost: \$ 600,000.00

Contact: Ron Patac (516) 575-4324

2. Owner: NYS Dept. of General Services

Type: Pump and Tank Removals/Installations

Location: Various locations throughout New York State

Disposal of Steel Tanks and Drums

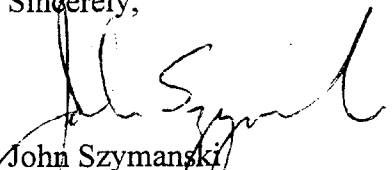
Facility: Gershow Recycling
71 Peconic Avenue
Medford, NY 11763

NYS I.D. # 7002727

Contact: Joe Bertuccio
(516) 289-6188

If you have any questions or require additional information, please do not hesitate to contact me at (516) 249-3150 ext. 371.

Sincerely,


John Szymanski
Sr. Environmental Estimator

Cost: \$ 5,000,000.00 - \$ 8,000,000.00 per regional contract

Contact: Marty Dipalo (518) 474-6189

* OSHA and Medical Requirements

Tyree Brothers Environmental Services, Inc. will provide personnel and perform the work in accordance with OSHA regulations as defined in 29 CFR 1910 and 29 CFR 1926. Enclosed is certification requirements of proposed team members and the completed Health and Safety Questionnaire provided by Tetra Tech NUS, Inc.

* Major Equipment

1. Case 580 Backhoe
2. Case 320 N Tracked Excavator
3. Utility Support Truck
4. Vacuum Truck

* Work Plan

1. Tyree Brothers Environmental Services, Inc. will perform the work in accordance with the requirements set forth 6 NYCRR Parts 612 - 614 Petroleum Bulk Storage and any other applicable rules, regulations and ordinances.
Permits from the Town of Riverhead will be expedited and provided prior to mobilization to the site.
2. Project Scheduling

March 27, 1998

Vac Truck to remove pumpable liquids from all tanks.
Excavate, remove and dispose of tanks 06-74-1 and 06-42-1. Backfill voids.

March 30, 1998

Excavate, remove and dispose of tank 06-40-1, aboveground tanks and used drums.

March 31 - April 1, 1998

Excavate, remove and dispose of tanks 06-12-13, 06-14-13, 06-15-13 and 06-12-12. Backfill voids.

3. Project Management

The Tyree Project Manager will coordinate and schedule all activities with the Tetra Tech Project Manager and field supervisor. Tyree PM will be responsible for obtaining permits, manifests, billing and project close-out procedures including completion of a Post Removal Report.

4. Removal of USTs/ASTs

The tanks will be removed, cleaned and disposed of in accordance with all rules, regulations and ordinances and in conformance with industry standard practices. If contaminated soil is encountered in relatively small quantities, the dirt is to be containerized in 55 gallon DOT approved drums suitable for transport. Larger quantities of contaminated soil will be stockpiled on and covered with polyethylene sheeting in close proximity to the work area.

5. Disposal of Waste

Tyree will collect, containerize and dispose of all tank fluids, wash water and cleaning materials and concrete. The waste transporter and TSDF identification sheets are attached for review and acceptance by Tetra Tech NUS, Inc.

6. Environmental Protection

Standard industry practices will be implemented to reduce the risk of releasing toxic substances to the environment such as hay bales, booms and absorbent pads.

7. Backfilling

Prior to backfilling, a Suffolk County Department of Health representative will inspect the excavation. Tyree will assist Tetra Tech NUS in the collection of soil samples.

The excavation will be backfilled with certified clean fill. The supplier will provide Tyree with a letter that identifies the source of the fill material prior to mobilization to the site.

8. Spill Prevention

Enclosed is Tyree's Standard Operating Procedure (SOP) for Spill Control.

9. Decontamination

All machinery and other equipment exposed to contaminated material will be decontaminated using a power washer and environmentally safe detergent. All rinsate will be containerized and removed off-site for proper disposal.

* Lower-Tier Subcontractors

None

Tyree Brothers Environmental Services, Inc.

208 Route 109, Farmingdale, NY 11735 • Fax: 516-249-3281 • Phone: 516-249-3150

3/27/98
TO: DAVE BRAYACK**WORK PLAN**

4pg.

1. Provide two (2) Vac Trucks to remove all pumpable product and water from six (6) USTs, three (3) 2,500 gallon above ground plastic tanks and the JP-5 AST.
2. Tank ID 06-42-1 will be excavated using a Case 580 backhoe. Soil will be removed from both sides of the tank. The tank will be hoisted out of the excavation and placed alongside the excavation. Lines will be removed to the separator and capped.
3. The atmosphere within the tank will be measured using a combination combustible gas/oxygen meter to ensure that the Lower Explosive Limit (LEL) does not exceed 10%. If necessary, the atmosphere will be rendered non-explosive by either the introduction of fresh air via venturi pump or by utilizing dry ice to dissipate vapors.
4. A starter hole will be drilled into one (1) end of the tank. A pneumatic reciprocating saw will cut a 24" diameter hole in the end.
5. Tank bottom sludge will be shoveled/squeegeed into 55 gallon DOT approved drums suitable for transport. Tank will be wiped clean with absorbent pads. Drums will be temporarily staged on-site at the fuel depot area.
6. Excavation will be backfilled with certified clean fill to grade.
7. Tank shell will be transported by flatbed trailer to fuel depot area for staging.
8. Tank ID 06-74-1 will be excavated using a Case 580 backhoe. Soil will be removed from both sides of the tank. The tank will be hoisted out of the excavation and placed alongside the excavation. Lines will be removed to the separator and capped.
9. The atmosphere within the tank will be measured using a combination combustible gas/oxygen meter to ensure that the Lower Explosive Limit (LEL) does not exceed 10%. If necessary, the atmosphere will be rendered non-explosive by either the introduction of fresh air via venturi pump or by utilizing dry ice to dissipate vapors.
10. A starter hole will be drilled into one (1) end of the tank. A pneumatic reciprocating saw will cut a 24" diameter hole in the end.
11. Tank bottom sludge will be shoveled/squeegeed into 55 gallon DOT approved drums suitable for transport. Tank will be wiped clean with absorbent pads. Drums will be temporarily staged on-site at the fuel depot area.

Member

**Tyree
Environmental
Technologies**

C-12

Tyree Brothers Environmental Services, Inc.

208 Route 109, Farmingdale, NY 11735 • Fax: 516-249-3281 • Phone: 516-249-3150

12. Excavation will be backfilled with certified clean fill to grade.
13. Tank shell will be transported by flatbed trailer to fuel depot area for staging.
14. Tank ID 06-40-1 will be excavated using a Case 580 backhoe. Soil will be removed from both sides of the tank. The tank will be hoisted out of the excavation and placed alongside the excavation. Lines will be removed to the building and capped.
15. The atmosphere within the tank will be measured using a combination combustible gas/oxygen meter to ensure that the Lower Explosive Limit (LEL) does not exceed 10%. If necessary, the atmosphere will be rendered non-explosive by either the introduction of fresh air via venturi pump or by utilizing dry ice to dissipate vapors.
16. A starter hole will be drilled into one (1) end of the tank. A pneumatic reciprocating saw will cut a 24" diameter hole in the end.
17. Tank bottom sludge will be shoveled/squeegeed into 55 gallon DOT approved drums suitable for transport. Tank will be wiped clean with absorbent pads. Drums will be temporarily staged on-site at the fuel depot area.
18. Excavation will be backfilled with certified clean fill to grade.
19. Tank shell will be transported by flatbed trailer to fuel depot area for staging.
20. Three (3) 2,500 gallon plastic tanks will be transported to the fuel depot area and cut in half using a pneumatic reciprocating saw. Tanks will be staged.
21. Tank I.D. 06-12-13 tank atmosphere will be measured using a combination combustible gas/oxygen meter to ensure that the Lower Explosive Limit (LEL) does not exceed 10%. If necessary, the atmosphere will be rendered non-explosive by either the introduction of fresh air via venturi pump or by utilizing dry ice to dissipate vapors.
22. A Confined Space Entry certified crew will utilize a tripod, life lines and harness to lower a man in Level B Protection into the tank.
23. Tank bottom sludge will be shoveled/squeegeed into 55 gallon DOT approved drums suitable for transport. Tank will be wiped clean with absorbent pads. Drums will be temporarily staged on-site at the fuel depot area.
24. Tank I.D. 06-12-14 tank atmosphere will be measured using a combination combustible gas/oxygen meter to ensure that the Lower Explosive Limit (LEL) does not exceed 10%. If necessary, the atmosphere will be rendered non-explosive by either the introduction of fresh air via venturi pump or by utilizing dry ice to dissipate vapors.

Member



Tyree
Environmental
Technologies

C-13

25. A Confined Space Entry certified crew will utilize a tripod, life lines and harness to lower a man in Level B Protection into the tank.
26. Tank bottom sludge will be shoveled/squeegeed into 55 gallon DOT approved drums suitable for transport. Tank will be wiped clean with absorbent pads. Drums will be temporarily staged on-site at the fuel depot area.
27. Tank I.D. 06-12-15 tank atmosphere will be measured using a combination combustible gas/oxygen meter to ensure that the Lower Explosive Limit (LEL) does not exceed 10%. If necessary, the atmosphere will be rendered non-explosive by either the introduction of fresh air via venturi pump or by utilizing dry ice to dissipate vapors.
28. A Confined Space Entry certified crew will utilize a tripod, life lines and harness to lower a man in Level B Protection into the tank.
29. Tank bottom sludge will be shoveled/squeegeed into 55 gallon DOT approved drums suitable for transport. Tank will be wiped clean with absorbent pads. Drums will be temporarily staged on-site at the fuel depot area.
30. Tank mats will be removed from above tanks by the large excavator. Concrete at the south end of the tanks will be broken back at the existing construction joint. Easternmost flag will be sawcut to accommodate the tank removal.
31. Dismantling of the steel AST 06-12-12 will take place concurrently with the pulling of the fiberglass tanks. The atmosphere within the tank will be measured using a combination combustible gas/oxygen meter to ensure that the Lower Explosive Limit (LEL) does not exceed 10%. If necessary, the atmosphere will be rendered non-explosive by either the introduction of fresh air via venturi pump or by utilizing dry ice to dissipate vapors.
32. A starter hole will be drilled into one (1) end of the tank. A pneumatic reciprocating saw will cut a 24" diameter hole in the end.
33. Tank bottom sludge will be shoveled/squeegeed into 55 gallon DOT approved drums suitable for transport. Tank will be wiped clean with absorbent pads. Drums will be temporarily staged on-site at the fuel depot area.
34. Tank shell will be staged at the fuel depot area.
35. Peagravel surrounding the fiberglass tanks will be removed and stockpiled to facilitate removal of the fiberglass tanks. Tank hold down straps will be cut.

36. Each tank will be hoisted out of the excavation by the existing lift hooks mounted on the tanks.
37. Tanks will be staged on site at the fuel depot.
38. Tank excavation will be backfilled with certified clean fill.
39. Empty steel drums from the Fire Training area will be collected and staged at the fuel depot.
40. Trailers that provided the clean fill will be loaded with concrete debris and plastic and fiberglass tanks for carting and disposal at a preapproved facility. Concrete and tanks may be broken or crushed within the trailer to facilitate adequate distribution within the bed.
41. The steel tank shells and empty steel drums will be carted by Tyree for disposal at Gershow Recycling Center.

Thank you —
Joe Pirel

3/30/98 11:00 A site

Tyler setting up @ machine Shop 1550 gal tank
 ~30" of H₂O in tank

Utilizing one of the plastic tanks from
 the Fire Training Area for storage
 (already 5" of liquid in the
 storage tank - deduct from
 pay item total)

12:00 Begin pumping water

12:20 Readings on Tank 06-74-1

LEL 0 O₂ 20.3% DVA 3ppm

1:00pm Fixer Dump out @ tank 06-74-1

Relocate to tank @ Trans Bldg (06-42-1)

1:40pm Uncovered tank 06-74-1. Second ppe which appears to
 enter the building. will be cut @ excav and capped depth 2'
 tank 06-74-1

2:00 Backhoe relocated to Trans Bldg. Also relocated
 the concrete slab from above the tank.

Site closed off w/ caution tape, waiting on
 County inspector. (Inspector must view excav & tank.)

Concrete held down pad will be left in place

2:20 Trans building tank # 06-42-1

LEL 0 O₂ 21.2% DVA 0ppm

2:30 Gun Butts 1,000 gal tank

Bottom of tank 75" hgs

DVA ~100ppm 2 1/2" product/liquid in
 bottom of tank.

Top of tank 30" hgs.

Groundwater @ 6' hgs C-16

5'
 4'
 3'

3/30/78

A minimal amount of ~~water~~ water leaked out of

The vent pipe upon moving the tank. ~~The vent pipe~~
 fuel supply/return lines were plugged w/ absorbent pad
~~and taped and elevated~~ w/ tape. They ~~will be removed~~ properly removed for trees.

3:10 1K Tank (06-40-1, Gun Belts) out of the ground

DVA readings
 downwind of
 each were ppm

marked w/ tank # & left in place

for Suffolk County Inspector

DVA Readings on soil from directly
 below tank. Slight odor, but nothing susta

0, 0, 0, 2 ppm, 0, 10 ppm

3:15 Tank interior

^{6%}
 LFL ~~all~~ D_2 21.2-21.4%

Area secured w/ caution tape

3:30 Unit to the clay

Secured unit in tank, pumped out (06-42-1)

Total depth of water: 28" \approx 900 gal

200 gal = 7 1/2" based on gauge on side

of tank $\frac{7.5}{200} = \frac{5}{1000}$ $7.5 \times 1000 = 7500$ ⁷⁵⁰ 133

≈ 135 gal

$Pmt = 23"$ $900 - 105 = 795$ gal

Tues am will begin @ Transportation Building
 w/ 550 gal waste oil tank

Photo @ machine shop
3 man.

1/2

8:30 AM on-site, calibrate equipment

Plan for day { discuss: ① Evacuation point
② Sched. for day
③ FBI Bldg.

8:00 meet up w/ Tyree personnel @
Gun Butts. Two members of crew
are responding to an emergency
and will not be on-site till later.

Will remove lines by hand. Removed
1" PVC supply & return lines to foundation
Removed vent pipe. Removed 3" PVC
w/ gauge lines to foundation.

Drained approximately 1 gallon of
water/fuel mix from lines.

9:15 Finished work @ Gun Butts returned to
Guard house to wait on message
from other crew members as to
schedule.

County inspector may or may not be
out today, based on conversation
w/ John @ Tyree.

11:00 Rest of Tyree crew on-site. Set up @
Machine Shop - Trans. Bldg.

~~D₂~~ LEL DVA

3/31/98

2/2

11:30 Tank Inspector Suffolk County

12:00 Gun Betts Samples Collected

12:50 Machine Shop Samples Collected

12:45 Began Excav of Trans Bldg Tank

Top of tank: 36"

1" water @ bottom

Bottom of tank: 84"

1:25 Tank out 06-42-1

LEL 0 O₂ 21.2% OVA ppm

Bottom of excav looks clean

No petroleum odor

~~See~~ Screening of soils w/ OVA showed
nothing

1000 gal - 242 gal = 22

1/

③

3/11/98

8:00 10,000 gal OVA 0 5" water
(106-12-13) LEL 0 (142 gal)
O₂ 21.3

~~10,000~~ 20,000 OVA 0 6" water
(106-12-15) LEL 0 (~~125~~ gal)
O₂ 20.9

10k (106-12-14) 4" water
(102 gal)

appear to have been cleaned.

8:20 2 Adalf ASTs

#1: OVA 471 ppm Don't think
O₂ 20.9% this is diesel
LEL 6 May be wash
oil. Black, some
thick (more viscous
than diesel)
#2: OVA 650 ppm
O₂ 20.9%
LEL 9

Relocated to fuel dept for cleaning

0930 Tank # 106-12-12

OVA 500 ppm LEL 0 O₂ 20.9%

Removed from pad. Piping disconnected

10 106-12-13/14/15 Ancillary equip removed
Begin removal of concrete pad

(-70)

4/1/98

1150 Load of sand backfill brought on-site (39.2 tons)
Haul out 1 load of concrete

Backfilled excav to grade at
Transportation bldg.

1115 Vac truck on-site to pump out sh/ds
06-12-13, 14, 15 06-12-12 (06-42-1) 06-40-1

1320 Vac Truck off-site 725 gallon
Squid for big Jack M
in Facilities mgmt

DVA on soil pile. Primarily 0ppm
One reading at 10ppm, 1 @ 2ppm
odor, but no visible signs of contamination at
bottom of excavation. Vapors may be
coming up from deeper esp since soils
are so porous (pea gravel & sand mix)

Tyree decided to pull tanks & clean
them on the ground due to instability
of excavation sides.

1430 1ht ppe. Dig from Facilities office shows it to
be a ~~series~~ from tanks that were formerly
located East of these. (C-21)

4/1/98

1500 Tank cut. Interior is clean

Came out in pieces

Soil screening mostly zero

one @ 10 ppm ; one @ 2 ppm

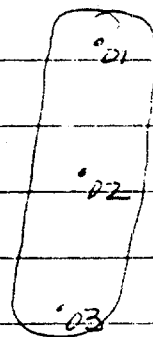
one @ 0.3 ppm No sustained odor.

1515-25 Collected Soil Samples

#1 CA-CL1213-12-01

02

03



1530

Back filled some of area.

11:00 Done for day. Packaged samples for Fed Ex.

4/2/98

Sample Numbers

N M S
CA-061214-12-01; 02; 03

CA-061215-13-01; 02; 03

0830 Excav of tank 06-12-14 begun
(Dike 4080 line)

Clearcut of fiberglass tanks begun

06-42-1 LEL 0 O₂: 20.9% OVA:06410-1 LEL 0 O₂: 20.9% OVA:LEL 2 O₂: 21.1 OVA: 16 peak

0920 Collected sample CA-061214-12-01

Half of tank 06-12-14 cut off ground

Smearing of soil below tank registered 2ppm on OVA.

0930 Began removing concrete lip over tanks
that contained the fuel ports.

0940 Load of sand delivered - weight: 40.72 tons

ticket #480093

1040 Load of concrete & fiberglass 1 tank @ 06-12-14
off-siteBenzene hits on 2 275gal tanks were 50 ppm
tanks will be cleared under level B.

12/98

1125 Collected sample # CA-061214-12-02

WA: 10 ppm

1130

CA-061214-12-03

WA: 3 ppm

1130 Excavation begins on ~~CA~~ 06-12-15 120K Gasoline
 Suffolk County Health Inspector due out
 this afternoon

1210 Bob Mercer - Suffolk County Inspector out
 looks fine, we were prev. aware of
 contam. Asked that we fax him
 sample results when we receive
 them for his files.

1315 Second load of sand on-site. (weight: 39.94 tons)
 load of fiberglass (tank # 06-12-13) loaded
 ticket # 480115)

1350 Third load of sand (weight: 39.03 tons)
 ticket # 480120

1430 20K tank out of the ground
 Viewed interior - clean

1600 06-12-15 loaded + 3 small tanks

Stake door

~~1100~~ 11010 Sample CA-061215-13-01

PID: 80 ppm

~~1100~~ 11000

-02

11005

-03

11015 Backfill excav w/ available
clean fill

4/2/98
Michelle Gilhe C14

NWIRP- Calverton
Dräger Tube Benzene (n=20 / 0.5c)

Time	Tank # / Size	PID (ppm)	Benzene (ppm)
8:00 - 8:15	06-74-1 Fiberglass 550 gal - waste oil some clear liquid / sludge on bottom	16 peak - bottom 0.7-2.3 ppm - top	ND (<0.5)
8:18 - 8:36	06-40-1 Fiberglass 1000 gal - #2 fuel oil sludge / dark liquid at bottom (~ 1/2 drum)	99 - peak bottom 94 - peak top	ND (<0.5)
8:37 - 9:00	06-42-1 Fiberglass 550 gal waste oil minor dark liquid / sludge on bottom	7 peak top 16 peak bottom	ND (<0.5)
9:50	06-12-12 Steel 550 gal JP-4? / diesel ~ 2 1/2 gal liquid in tank	87 - peak top 84 peak bottom	710 ppm * * light yellow green - brown discolorate

10:15 - 10:18

#1 brown steel

333 ppm-max

> 10 ppm

tank

(n=6 only)

275 gal

brown-yellow

marked "diesel"

* calculated vapor

cmc = 740 pp

10:25 - 10:40

#2 brown steel

404 ppm-max

> 10 ppm

tank 275 gal

(n=5) brown-y.

marked "diesel"

calculated vapor ca

= > 40 ppm

Michelle J. Miller

4/2/98

4/3/98

0745 Start work. Continue backfilling excavation at Fuel Dept.

0815 Load of sand fill delivered.
40.24 tons (weight ticket #: 480152)

0830 Pipe from 550 gal AST @ Fuel Depot (#06-12-12) removed ~~on~~ and capped on building roof.

Drums of waste labeled:

- 1) waste oil tank bottoms
- 2) Diesel/heating oil tank residues (speedi-dry)
- 3) Sand with Set A { Fuel Depot Area
- 4) Sand with Set A }

will be staged at Fire Training Area.

0910 Load #2 of sand fill
41.93 tons (weight ticket #: 480165)

1030 Return temporary water storage tank to Fire Training Area. Picked up plastic & steel for disposal.

1100 Load #3 sand fill
39.28 tons (weight ticket #: 480186)

1130 Load of plastic water tanks, fiberglass pipe scraps, and concrete loaded and removed from site (1250)

4/3/98

A large crack had developed in Fuel Spill pad due to undermining. Pad was removed.

1200 load of scrap steel offsite (pipes, ancillary equipment). Weight: 6,180# (ticket # 1619245)
Gershow Recycling, Medford, NY

1315 Dump truck returns load 3 steel tanks and remainder of misc scrap steel from Fire Training Area. Weight: 25,600# - ticket # 161935

1430 Relocated 4 drums to Fire Training Area.
Drum of residue/speedi-dry from waste oil tanks staged on pallet near decan pad.
Remaining 3 drums staged separately. Tyree will return at a later date to dispose.

Saw cut eastern edge of concrete pad

1545 load #4 - concrete blend fill for area where concrete pad was removed to provide a more solid driving surface.
42.25 tons (ticket #: 322919)

1700 off-site.

Concrete and fiberglass were disposed of at Bayson Landfill on Magnolia Road in Bethpage, NY 1-79

APPENDIX D
ANALYTICAL METHODS AND RESULTS

METHODS SUMMARY

C8D010112

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3550B
Total Residue as Percent Solids	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

CTO 270 SDG BR376

04/30/98

Proj Name	Job No	Sdg	Sample Number	Lab Id	Fraction	Sort	Lab Rec	B&R Rec	Turn-Time	WO No	Laboratory
NWIRP CALVERTON	7398	BR376	CA-061213-12-01	C8D020120003	OS	OS	04/02/98	04/30/98	28	C8D020120	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061213-12-02	C8D020120001	OS	OS	04/02/98	04/30/98	28	C8D020120	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061213-12-03	C8D020120002	OS	OS	04/02/98	04/30/98	28	C8D020120	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061214-12-01	C8D030131004	OS	OS	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061214-12-02	C8D030131005	OS	OS	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061214-12-03	C8D030131006	OS	OS	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061215-13-01	C8D030131007	OS	OS	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061215-13-02	C8D030131008	OS	OS	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061215-13-03	C8D030131009	OS	OS	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-06401-7	C8D010112001	OS	OS	04/01/98	04/30/98	29	C8D010112	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-06421-8	C8D010112003	OS	OS	04/01/98	04/30/98	29	C8D010112	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-06741-6	C8D010112002	OS	OS	04/01/98	04/30/98	29	C8D010112	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-DCT-01	C8D030131001	OS	OS	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-DCT-01	C8D030131001	OV	OV	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	FC-MW07-S	C8D030131002	OV	OV	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	FC-MW08-S	C8D030131003	OV	OV	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	TB-032098	C8D010112004	OV	OV	04/01/98	04/30/98	29	C8D010112	QUANTERRA
NWIRP CALVERTON	7398	BR376	TB-033098	C8D020120004	OV	OV	04/02/98	04/30/98	28	C8D020120	QUANTERRA
NWIRP CALVERTON	7398	BR376	TB-033098-A	C8D030131010	OV	OV	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061213-12-01	C8D020120003	OVE	OVE	04/02/98	04/30/98	28	C8D020120	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061213-12-02	C8D020120001	OVE	OVE	04/02/98	04/30/98	28	C8D020120	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061213-12-03	C8D020120002	OVE	OVE	04/02/98	04/30/98	28	C8D020120	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061214-12-01	C8D030131004	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061214-12-02	C8D030131005	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061214-12-03	C8D030131006	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061214-12-03RE	C8D030131006	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061215-13-01	C8D030131007	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061215-13-02	C8D030131008	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA

D-2

Project Name	Job No	Sdg	Sample Number	Lab	Fraction	Sort	Lab Rec	B&R Rec	Turn-Time	WC	Laboratory
NWIRP CALVERTON	7398	BR376	CA-061215-13-03	C8D030131009	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-061215-13-03RE	C8D030131009	OVE	OVE	04/03/98	04/30/98	27	C8D030131	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-06401-7	C8D010112001	OVE	OVE	04/01/98	04/30/98	29	C8D010112	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-06421-8	C8D010112003	OVE	OVE	04/01/98	04/30/98	29	C8D010112	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-06421-8RE	C8D010112003	OVE	OVE	04/01/98	04/30/98	29	C8D010112	QUANTERRA
NWIRP CALVERTON	7398	BR376	CA-06741-6	C8D010112002	OVE	OVE	04/01/98	04/30/98	29	C8D010112	QUANTERRA

17-3

CTO270 - NWIRP CALVERTON

SOIL DATA
QUANTERRA
SDG: BR376

Page

1

SAMPLE NUMBER:	CA-061213-12-01	CA-061213-12-02	CA-061213-12-03	CA-061214-12-01
SAMPLE DATE:	04/01/98	04/01/98	04/01/98	04/02/98
LABORATORY ID:	C8D020120003	C8D020120001	C8D020120002	C8D030131004
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	96.0 %	94.5 %	94.4 %	92.1 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	7.1	U		8.8	U		10	U		12	U	
1,1,2,2-TETRACHLOROETHANE	7.1	U		8.8	U		10	U		12	U	
1,1,2-TRICHLOROETHANE	7.1	U		8.8	U		10	U		12	U	
1,1-DICHLOROETHANE	7.1	U		8.8	U		10	U		12	U	
1,1-DICHLOROETHENE	7.1	U		8.8	U		10	U		12	U	
1,2-DICHLOROETHANE	7.1	U		8.8	U		10	U		12	U	
1,2-DICHLOROETHENE (TOTAL)	7.1	U		8.8	U		10	U		12	U	
1,2-DICHLOROPROPANE	7.1	U		8.8	U		10	U		12	U	
2-BUTANONE	6.2	J		35	U		41	U		13	J	
2-HEXANONE	28	U		35	U		41	U		49	U	
4-METHYL-2-PENTANONE	28	U		35	U		41	U		49	U	
ACETONE	5	J		4.1	J		5.2	J		19	J	
BENZENE	7.1	U		8.8	U		10	U		12	U	
BROMODICHLOROMETHANE	7.1	U		8.8	U		10	U		12	U	
BROMOFORM	7.1	U		8.8	U		10	U		12	U	
BROMOMETHANE	14	U		18	U		21	U		25	U	
CARBON DISULFIDE	7.1	U		8.8	U		10	U		12	U	
CARBON TETRACHLORIDE	7.1	U		8.8	U		10	U		12	U	
CHLOROBENZENE	7.1	U		8.8	U		10	U		12	U	
CHLOROETHANE	14	U		18	U		21	U		25	U	
CHLOROFORM	7.1	U		8.8	U		10	U		12	U	
CHLOROMETHANE	14	U		18	U		21	U		25	U	
CIS-1,3-DICHLOROPROPENE	7.1	U		8.8	U		10	U		12	U	
DIBROMOCHLOROMETHANE	7.1	U		8.8	U		10	U		12	U	
ETHYLBENZENE	7.1	U		8.8	U		10	U		12	U	
METHYLENE CHLORIDE	7.1	U		8.8	U		5.5	J		12	U	
STYRENE	7.1	U		8.8	U		10	U		12	U	
TETRACHLOROETHENE	7.1	U		8.8	U		10	U		12	U	
TOLUENE	7.1	U		8.8	U		10	U		13		
TRANS-1,3-DICHLOROPROPENE	7.1	U		8.8	U		10	U		12	U	
TRICHLOROETHENE	7.1	U		8.8	U		10	U		12	U	
VINYL CHLORIDE	14	U		18	U		21	U		25	U	

CTC270 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page

2

SAMPLE NUMBER:

CA-061214-12-02

CA-061214-12-03

CA-061214-12-03RE

CA-061215-13-01

SAMPLE DATE:

04/02/98

04/02/98

04/02/98

04/02/98

LABORATORY ID:

C8D030131005

C8D030131006

C8D030131006

C8D030131007

QC_TYPE:

NORMAL

NORMAL

NORMAL

NORMAL

% SOLIDS:

93.0 %

89.0 %

89.0 %

95.1 %

UNITS:

UG/KG

UG/KG

UG/KG

UG/KG

FIELD DUPLICATE OF:

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	4.9	U		12	U		17	U		18	U	
1,1,2,2-TETRACHLOROETHANE	4.9	U		12	U		17	U		18	U	
1,1,2-TRICHLOROETHANE	4.9	U		12	U		17	U		18	U	
1,1-DICHLOROETHANE	4.9	U		12	U		17	U		18	U	
1,1-DICHLOROETHENE	4.9	U		12	U		17	U		18	U	
1,2-DICHLOROETHANE	4.9	U		12	U		17	U		18	U	
1,2-DICHLOROETHENE (TOTAL)	4.9	U		12	U		17	U		18	U	
1,2-DICHLOROPROPANE	4.9	U		12	U		17	U		18	U	
2-BUTANONE	20	U		48	U		69	U		31	J	
2-HEXANONE	20	U		48	U		69	U		70	U	
4-METHYL-2-PENTANONE	20	U		48	U		69	U		70	U	
ACETONE	4.1	J		48	U		19	J		51	J	
BENZENE	4.9	U		12	U		17	U		18	U	
BROMODICHLOROMETHANE	4.9	U		12	U		17	U		18	U	
BROMOFORM	4.9	U		12	U		17	U		18	U	
BROMOMETHANE	9.9	U		24	U		34	U		35	U	
CARBON DISULFIDE	4.9	U		12	U		17	U		18	U	
CARBON TETRACHLORIDE	4.9	U		12	U		17	U		18	U	
CHLOROBENZENE	4.9	U		12	U		17	U		18	U	
CHLOROETHANE	9.9	U		24	U		34	U		35	U	
CHLOROFORM	4.9	U		12	U		17	U		18	U	
CHLOROMETHANE	9.9	U		24	U		34	U		35	U	
CIS-1,3-DICHLOROPROPENE	4.9	U		12	U		17	U		18	U	
DIBROMOCHLOROMETHANE	4.9	U		12	U		17	U		18	U	
ETHYLBENZENE	4.9	U		12	U		17	U		590		
METHYLENE CHLORIDE	4.9	U		12	U		17	U		18	U	
STYRENE	4.9	U		12	U		17	U		18	U	
TETRACHLOROETHENE	4.9	U		12	U		17	U		18	U	
TOLUENE	4.9	U		12	U		17	U		110		
TRANS-1,3-DICHLOROPROPENE	4.9	U		12	U		17	U		18	U	
TRICHLOROETHENE	4.9	U		12	U		17	U		18	U	
VINYL CHLORIDE	9.9	U		24	U		34	U		35	U	

CTO270 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page

3

SAMPLE NUMBER:	CA-061215-13-02	CA-061215-13-03	CA-061215-13-03RE	CA-06401-7
SAMPLE DATE:	04/02/98	04/02/98	04/02/98	03/31/98
LABORATORY ID:	C8D030131008	C8D030131009	C8D030131009	C8D010112001
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	95.1 %	96.7 %	96.7 %	89.0 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	15	U		17	U		26	U		12	U	
1,1,2,2-TETRACHLOROETHANE	15	U		17	U		26	U		12	U	
1,1,2-TRICHLOROETHANE	15	U		17	U		26	U		12	U	
1,1-DICHLOROETHANE	15	U		17	U		26	U		12	U	
1,1-DICHLOROETHENE	15	U		17	U		26	U		12	U	
1,2-DICHLOROETHANE	15	U		17	U		26	U		12	U	
1,2-DICHLOROETHENE (TOTAL)	15	U		17	U		26	U		12	U	
1,2-DICHLOROPROPANE	15	U		17	U		26	U		12	U	
2-BUTANONE	59	U		70	U		100	U		49	U	
2-HEXANONE	59	U		70	U		100	U		49	U	
4-METHYL-2-PENTANONE	59	U		70	U		100	U		49	U	
ACETONE	6.2	J		70	U		9.3	J		9.1	J	
BENZENE	15	U		17	U		26	U		12	U	
BROMODICHLOROMETHANE	15	U		17	U		26	U		12	U	
BROMOFORM	15	U		17	U		26	U		12	U	
BROMOMETHANE	30	U		35	U		52	U		25	U	
CARBON DISULFIDE	15	U		17	U		26	U		12	U	
CARBON TETRACHLORIDE	15	U		17	U		26	U		12	U	
CHLOROBENZENE	15	U		17	U		26	U		12	U	
CHLOROETHANE	30	U		35	U		52	U		25	U	
CHLOROFORM	15	U		17	U		26	U		12	U	
CHLOROMETHANE	30	U		35	U		52	U		25	U	
CIS-1,3-DICHLOROPROPENE	15	U		17	U		26	U		12	U	
DIBROMOCHLOROMETHANE	15	U		17	U		26	U		12	U	
ETHYLBENZENE	15	U		17	U		26	U		12	U	
METHYLENE CHLORIDE	15	U		17	U		26	U		3.8	J	
STYRENE	15	U		17	U		26	U		12	U	
TETRACHLOROETHENE	15	U		17	U		26	U		12	U	
TOLUENE	15	U		17	U		26	U		12	U	
TRANS-1,3-DICHLOROPROPENE	15	U		17	U		26	U		12	U	
TRICHLOROETHENE	15	U		17	U		26	U		12	U	
VINYL CHLORIDE	30	U		35	U		52	U		25	U	

CTO270 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page

4

SAMPLE NUMBER:	CA-06421-8	CA-06421-8RE	CA-06741-6	
SAMPLE DATE:	03/31/98	03/31/98	03/31/98	//
LABORATORY ID:	C8D010112003	C8D010112003	C8D010112002	
QC_TYPE:	NORMAL	NORMAL	NORMAL	
% SOLIDS:	93.0 %	93.0 %	93.5 %	100.0 %
UNITS:	UG/KG	UG/KG	UG/KG	
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
VOLATILES												
1,1,1-TRICHLOROETHANE	5.9	U		6.3	U		10	U				
1,1,2,2-TETRACHLOROETHANE	5.9	U		6.3	U		10	U				
1,1,2-TRICHLOROETHANE	5.9	U		6.3	U		10	U				
1,1-DICHLOROETHANE	5.9	U		6.3	U		10	U				
1,1-DICHLOROETHENE	5.9	U		6.3	U		10	U				
1,2-DICHLOROETHANE	5.9	U		6.3	U		10	U				
1,2-DICHLOROETHENE (TOTAL)	5.9	U		6.3	U		10	U				
1,2-DICHLOROPROPANE	5.9	U		6.3	U		10	U				
2-BUTANONE	23	U		25	U		41	U				
2-HEXANONE	23	U		25	U		41	U				
4-METHYL-2-PENTANONE	23	U		25	U		41	U				
ACETONE	6.9	J		9	J		7.7	J				
BENZENE	5.9	U		6.3	U		10	U				
BROMODICHLOROMETHANE	5.9	U		6.3	U		10	U				
BROMOFORM	5.9	U		6.3	U		10	U				
BROMOMETHANE	12	U		13	U		20	U				
CARBON DISULFIDE	5.9	U		6.3	U		10	U				
CARBON TETRACHLORIDE	5.9	U		6.3	U		10	U				
CHLOROBENZENE	5.9	U		6.3	U		10	U				
CHLOROETHANE	12	U		13	U		20	U				
CHLOROFORM	5.9	U		6.3	U		10	U				
CHLOROMETHANE	12	U		13	U		20	U				
CIS-1,3-DICHLOROPROPENE	5.9	U		6.3	U		10	U				
DIBROMOCHLOROMETHANE	5.9	U		6.3	U		10	U				
ETHYLBENZENE	5.9	U		6.3	U		10	U				
METHYLENE CHLORIDE	5.9	U		6.3	U		10	U				
STYRENE	5.9	U		6.3	U		10	U				
TETRACHLOROETHENE	5.9	U		6.3	U		10	U				
TOLUENE	5.9	U		6.3	U		10	U				
TRANS-1,3-DICHLOROPROPENE	5.9	U		6.3	U		10	U				
TRICHLOROETHENE	5.9	U		6.3	U		10	U				
VINYL CHLORIDE	12	U		13	U		20	U				

17-7

CTCL 0 - NWIRP CALVERTON
WATER DATA
QUANTERRA
SDG: BR376

•

SAMPLE NUMBER:
SAMPLE DATE:
LABORATORY ID:
QC_TYPE:
% SOLIDS:
UNITS:
FIELD DUPLICATE OF:

CA-DCT-01
04/02/98
C8D030131001
NORMAL
0.0 %
UG/L

11

100.0 %

[illegible]

SAMPLE NUMBER:
SAMPLE DATE:
LABORATORY ID:
QC_TYPE:
% SOLIDS:
UNITS:
FIELD DUPLICATE

CA-DCT-01
04/02/98
C8D030131001
NORMAL
0.0 %
UG/L

11

//

11

100.0 %

100.0 %

100.0 %

UNITS:
FIELD DUPLICATE OF:

UG/L

[illegible]

CTO270 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page 1

SAMPLE NUMBER:	CA-061213-12-01	CA-061213-12-02	CA-061213-12-03	CA-061214-12-01
SAMPLE DATE:	04/01/98	04/01/98	04/01/98	04/02/98
LABORATORY ID:	C8D020120003	C8D020120001	C8D020120002	C8D030131004
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	96.0 %	94.5 %	94.4 %	92.1 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
SEMIVOLATILES												
1,2,4-TRICHLOROBENZENE	340	U		350	U		350	U		360	U	
1,2-DICHLOROBENZENE	340	U		350	U		350	U		360	U	
1,3-DICHLOROBENZENE	340	U		350	U		350	U		360	U	
1,4-DICHLOROBENZENE	340	U		350	U		350	U		360	U	
2,4,5-TRICHLOROPHENOL	340	U		350	U		350	U		360	U	
2,4,6-TRICHLOROPHENOL	340	U		350	U		350	U		360	U	
2,4-DICHLOROPHENOL	340	U		350	U		350	U		360	U	
2,4-DIMETHYLPHENOL	340	U		350	U		350	U		360	U	
2,4-DINITROPHENOL	1700	U		1700	U		1700	U		1700	U	
2,4-DINITROTOLUENE	340	U		350	U		350	U		360	U	
2,6-DINITROTOLUENE	340	U		350	U		350	U		360	U	
2-CHLORONAPHTHALENE	340	U		350	U		350	U		360	U	
2-CHLOROPHENOL	340	U		350	U		350	U		360	U	
2-METHYL-4,6-DINITROPHENOL	1700	U		1700	U		1700	U		1700	U	
2-METHYLNAPHTHALENE	340	U		350	U		350	U		360	U	
2-METHYLPHENOL	340	U		350	U		350	U		360	U	
2-NITROANILINE	1700	U		1700	U		1700	U		1700	U	
2-NITROPHENOL	340	U		350	U		350	U		360	U	
3,3'-DICHLOROBENZIDINE	1700	U		1700	U		1700	U		1700	U	
3-NITROANILINE	1700	U		1700	U		1700	U		1700	U	
4-BROMOPHENYL PHENYL ETHER	340	U		350	U		350	U		360	U	
4-CHLORO-3-METHYLPHENOL	340	U		350	U		350	U		360	U	
4-CHLOROANILINE	340	U		350	U		350	U		360	U	
4-CHLOROPHENYL PHENYL ETHER	340	U		350	U		350	U		360	U	
4-METHYLPHENOL	340	U		350	U		350	U		360	U	
4-NITROANILINE	1700	U		1700	U		1700	U		1700	U	
4-NITROPHENOL	1700	U		1700	U		1700	U		1700	U	
ACENAPHTHENE	340	U		350	U		350	U		360	U	
ACENAPHTHYLENE	340	U		350	U		350	U		360	U	
ANTHRACENE	87	J		350	U		350	U		360	U	
BENZO(A)ANTHRACENE	450			350	U		350	U		360	U	
BENZO(A)PYRENE	450			350	U		350	U		360	U	

CTO270 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page

2

SAMPLE NUMBER:	CA-061213-12-01	CA-061213-12-02	CA-061213-12-03	CA-061214-12-01
SAMPLE DATE:	04/01/98	04/01/98	04/01/98	04/02/98
LABORATORY ID:	C8D020120003	C8D020120001	C8D020120002	C8D030131004
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	96.0 %	94.5 %	94.4 %	92.1 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
SEMIVOLATILES												
BENZO(G,H,I)PERYLENE	330	J		350	U		350	U		360	U	
BENZO(K)FLUORANTHENE	230	J		350	U		350	U		360	U	
BIS(2-CHLOROETHOXY)METHANE	340	U		350	U		350	U		360	U	
BIS(2-CHLOROETHYL)ETHER	340	U		350	U		350	U		360	U	
BIS(2-CHLOROISOPROPYL) ETHER	340	U		350	U		350	U		360	U	
BIS(2-ETHYLHEXYL)PHTHALATE	340	U		350	U		350	U		360	U	
BUTYLBENZYL PHTHALATE	340	U		350	U		350	U		360	U	
CARBAZOLE	340	U		350	U		350	U		360	U	
CHRYSENE	530			350	U		350	U		360	U	
DI-N-BUTYL PHTHALATE	340	U		350	U		350	U		360	U	
DI-N-OCTYL PHTHALATE	340	U		350	U		350	U		360	U	
DIBENZO(A,H)ANTHRACENE	340	U		350	U		350	U		360	U	
DIBENZOFURAN	340	U		350	U		350	U		360	U	
DIETHYL PHTHALATE	340	U		350	U		350	U		360	U	
DIMETHYL PHTHALATE	340	U		350	U		350	U		360	U	
FLUORANTHENE	1000			350	U		350	U		360	U	
FLUORENE	340	U		350	U		350	U		360	U	
HEXACHLOROBENZENE	340	U		350	U		350	U		360	U	
HEXACHLOROBUTADIENE	340	U		350	U		350	U		360	U	
HEXACHLOROCYCLOPENTADIENE	1700	U		1700	U		1700	U		1700	U	
HEXACHLOROETHANE	340	U		350	U		350	U		360	U	
INDENO(1,2,3-CD)PYRENE	310	J		350	U		350	U		360	U	
ISOPHORONE	340	U		350	U		350	U		360	U	
N-NITROSO-DI-N-PROPYLAMINE	340	U		350	U		350	U		360	U	
N-NITROSODIPHENYLAMINE	340	U		350	U		350	U		360	U	
NAPHTHALENE	340	U		350	U		350	U		360	U	
NITROBENZENE	340	U		350	U		350	U		360	U	
PENTACHLOROPHENOL	1700	U		1700	U		1700	U		1700	U	
PHENANTHRENE	320	J		350	U		350	U		360	U	
PHENOL	340	U		350	U		350	U		360	U	
PYRENE	880			350	U		350	U		360	U	

CTC 70 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page

3

SAMPLE NUMBER:	CA-061214-12-02	CA-061214-12-03	CA-061215-13-01	CA-061215-13-02
SAMPLE DATE:	04/02/98	04/02/98	04/02/98	04/02/98
LABORATORY ID:	C8D030131005	C8D030131006	C8D030131007	C8D030131008
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	93.0 %	89.0 %	95.1 %	95.1 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
SEMIVOLATILES												
1,2,4-TRICHLOROBENZENE	350	U		370	U		350	U		350	U	
1,2-DICHLOROBENZENE	350	U		370	U		350	U		350	U	
1,3-DICHLOROBENZENE	350	U		370	U		350	U		350	U	
1,4-DICHLOROBENZENE	350	U		370	U		350	U		350	U	
2,4,5-TRICHLOROPHENOL	350	U		370	U		350	U		350	U	
2,4,6-TRICHLOROPHENOL	350	U		370	U		350	U		350	U	
2,4-DICHLOROPHENOL	350	U		370	U		350	U		350	U	
2,4-DIMETHYLPHENOL	350	U		370	U		350	U		350	U	
2,4-DINITROPHENOL	1700	U		1800	U		1700	U		1700	U	
2,4-DINITROTOLUENE	350	U		370	U		350	U		350	U	
2,6-DINITROTOLUENE	350	U		370	U		350	U		350	U	
2-CHLORONAPHTHALENE	350	U		370	U		350	U		350	U	
2-CHLOROPHENOL	350	U		370	U		350	U		350	U	
2-METHYL-4,6-DINITROPHENOL	1700	U		1800	U		1700	U		1700	U	
2-METHYLNAPHTHALENE	350	U		370	U		2600			350	U	
2-METHYLPHENOL	350	U		370	U		350	U		350	U	
2-NITROANILINE	1700	U		1800	U		1700	U		1700	U	
2-NITROPHENOL	350	U		370	U		350	U		350	U	
3,3'-DICHLORO BENZIDINE	1700	U		1800	U		1700	U		1700	U	
3-NITROANILINE	1700	U		1800	U		1700	U		1700	U	
4-BROMOPHENYL PHENYL ETHER	350	U		370	U		350	U		350	U	
4-CHLORO-3-METHYLPHENOL	350	U		370	U		350	U		350	U	
4-CHLOROANILINE	350	U		370	U		350	U		350	U	
4-CHLOROPHENYL PHENYL ETHER	350	U		370	U		350	U		350	U	
4-METHYLPHENOL	350	U		370	U		350	U		350	U	
4-NITROANILINE	1700	U		1800	U		1700	U		1700	U	
4-NITROPHENOL	1700	U		1800	U		1700	U		1700	U	
ACENAPHTHENE	350	U		370	U		350	U		350	U	
ACENAPHTHYLENE	350	U		370	U		350	U		350	U	
ANTHRACENE	350	U		370	U		350	U		350	U	
BENZO(A)ANTHRACENE	350	U		370	U		350	U		350	U	
BENZO(A)PYRENE	350	U		370	U		350	U		350	U	

CTO270 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page

4

SAMPLE NUMBER:	CA-061214-12-02	CA-061214-12-03	CA-061215-13-01	CA-061215-13-02
SAMPLE DATE:	04/02/98	04/02/98	04/02/98	04/02/98
LABORATORY ID:	C8D030131005	C8D030131006	C8D030131007	C8D030131008
QC_TYPE:	NORMAL	NORMAL	NORMAL	NORMAL
% SOLIDS:	93.0 %	89.0 %	95.1 %	95.1 %
UNITS:	UG/KG	UG/KG	UG/KG	UG/KG
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
SEMIVOLATILES												
BENZO(G,H,I)PERYLENE	350	U		370	U		350	U		350	U	
BENZO(K)FLUORANTHENE	350	U		370	U		350	U		350	U	
BIS(2-CHLOROETHOXY)METHANE	350	U		370	U		350	U		350	U	
BIS(2-CHLOROETHYL)ETHER	350	U		370	U		350	U		350	U	
BIS(2-CHLOROISOPROPYL) ETHER	350	U		370	U		350	U		350	U	
BIS(2-ETHYLHEXYL)PHTHALATE	350	U		370	U		350	U		350	U	
BUTYLBENZYL PHTHALATE	350	U		370	U		350	U		350	U	
CARBAZOLE	350	U		370	U		350	U		350	U	
CHRYSENE	350	U		370	U		350	U		350	U	
DI-N-BUTYL PHTHALATE	350	U		370	U		350	U		350	U	
DI-N-OCTYL PHTHALATE	350	U		370	U		350	U		350	U	
DIBENZO(A,H)ANTHRACENE	350	U		370	U		350	U		350	U	
DIBENZOFURAN	350	U		370	U		54	J		350	U	
DIETHYL PHTHALATE	350	U		370	U		350	U		350	U	
DIMETHYL PHTHALATE	350	U		370	U		350	U		350	U	
FLUORANTHENE	350	U		370	U		350	U		350	U	
FLUORENE	350	U		370	U		350	U		350	U	
HEXACHLORO BENZENE	350	U		370	U		350	U		350	U	
HEXACHLOROBUTADIENE	350	U		370	U		350	U		350	U	
HEXACHLOROCYCLOPENTADIENE	1700	U		1800	U		1700	U		1700	U	
HEXACHLOROETHANE	350	U		370	U		350	U		350	U	
INDENO(1,2,3-CD)PYRENE	350	U		370	U		350	U		350	U	
ISOPHORONE	350	U		370	U		350	U		350	U	
N-NITROSO-DI-N-PROPYLAMINE	350	U		370	U		350	U		350	U	
N-NITROSODIPHENYLAMINE	350	U		370	U		350	U		350	U	
NAPHTHALENE	350	U		370	U		550			350	U	
NITROBENZENE	350	U		370	U		350	U		350	U	
PENTACHLOROPHENOL	1700	U		1800	U		1700	U		1700	U	
PHENANTHRENE	350	U		370	U		350	U		350	U	
PHENOL	350	U		370	U		350	U		350	U	
PYRENE	350	U		370	U		350	U		350	U	

CTO270 - NWIRP CALVERTON
SOIL DATA
QUANTERRA
SDG: BR376

Page

5

SAMPLE NUMBER:
 SAMPLE DATE:
 LABORATORY ID:
 QC_TYPE:
 % SOLIDS:
 UNITS:
 FIELD DUPLICATE OF:

CA-061215-13-03
 04/02/98
 C8D030131009
 NORMAL
 96.7 %
 UG/KG

CA-06401-7
 03/31/98
 C8D010112001
 NORMAL
 89.0 %
 UG/KG

CA-06421-8
 03/31/98
 C8D010112003
 NORMAL
 93.0 %
 UG/KG

CA-06741-6
 03/31/98
 C8D010112002
 NORMAL
 93.5 %
 UG/KG

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
SEMIVOLATILES												
1,2,4-TRICHLOROBENZENE	340	U		370	U		350	U		350	U	
1,2-DICHLOROBENZENE	340	U		370	U		350	U		350	U	
1,3-DICHLOROBENZENE	340	U		370	U		350	U		350	U	
1,4-DICHLOROBENZENE	340	U		370	U		350	U		350	U	
2,4,5-TRICHLOROPHENOL	340	U		370	U		350	U		350	U	
2,4,6-TRICHLOROPHENOL	340	U		370	U		350	U		350	U	
2,4-DICHLOROPHENOL	340	U		370	U		350	U		350	U	
2,4-DIMETHYLPHENOL	340	U		370	U		350	U		350	U	
2,4-DINITROPHENOL	1700	U		1800	U		1700	U		1700	U	
2,4-DINITROTOLUENE	340	U		370	U		350	U		350	U	
2,6-DINITROTOLUENE	340	U		370	U		350	U		350	U	
2-CHLORONAPHTHALENE	340	U		370	U		350	U		350	U	
2-CHLOROPHENOL	340	U		370	U		350	U		350	U	
2-METHYL-4,6-DINITROPHENOL	1700	U		1800	U		1700	U		1700	U	
2-METHYLNAPHTHALENE	340	U		370	U		350	U		350	U	
2-METHYLPHENOL	340	U		370	U		350	U		350	U	
2-NITROANILINE	1700	U		1800	U		1700	U		1700	U	
2-NITROPHENOL	340	U		370	U		350	U		350	U	
3,3'-DICHLOROBENZIDINE	1700	U		1800	U		1700	U		1700	U	
3-NITROANILINE	1700	U		1800	U		1700	U		1700	U	
4-BROMOPHENYL PHENYL ETHER	340	U		370	U		350	U		350	U	
4-CHLORO-3-METHYLPHENOL	340	U		370	U		350	U		350	U	
4-CHLOROANILINE	340	U		370	U		350	U		350	U	
4-CHLOROPHENYL PHENYL ETHER	340	U		370	U		350	U		350	U	
4-METHYLPHENOL	340	U		370	U		350	U		350	U	
4-NITROANILINE	1700	U		1800	U		1700	U		1700	U	
4-NITROPHENOL	1700	U		1800	U		1700	U		1700	U	
ACENAPHTHENE	340	U		75	J		350	U		350	U	
ACENAPHTHYLENE	340	U		370	U		350	U		350	U	
ANTHRACENE	340	U		99	J		350	U		350	U	
BENZO(A)ANTHRACENE	340	U		320	J		350	U		350	U	
BENZO(A)PYRENE	340	U		270	J		350	U		350	U	

APPENDIX E
CHAIN OF CUSTODY AND SAMPLE LOG SHEETS

Tetra Tech NUS (10B)

[illegible]

CHAIN OF CUSTODY RECORD

[illegible]

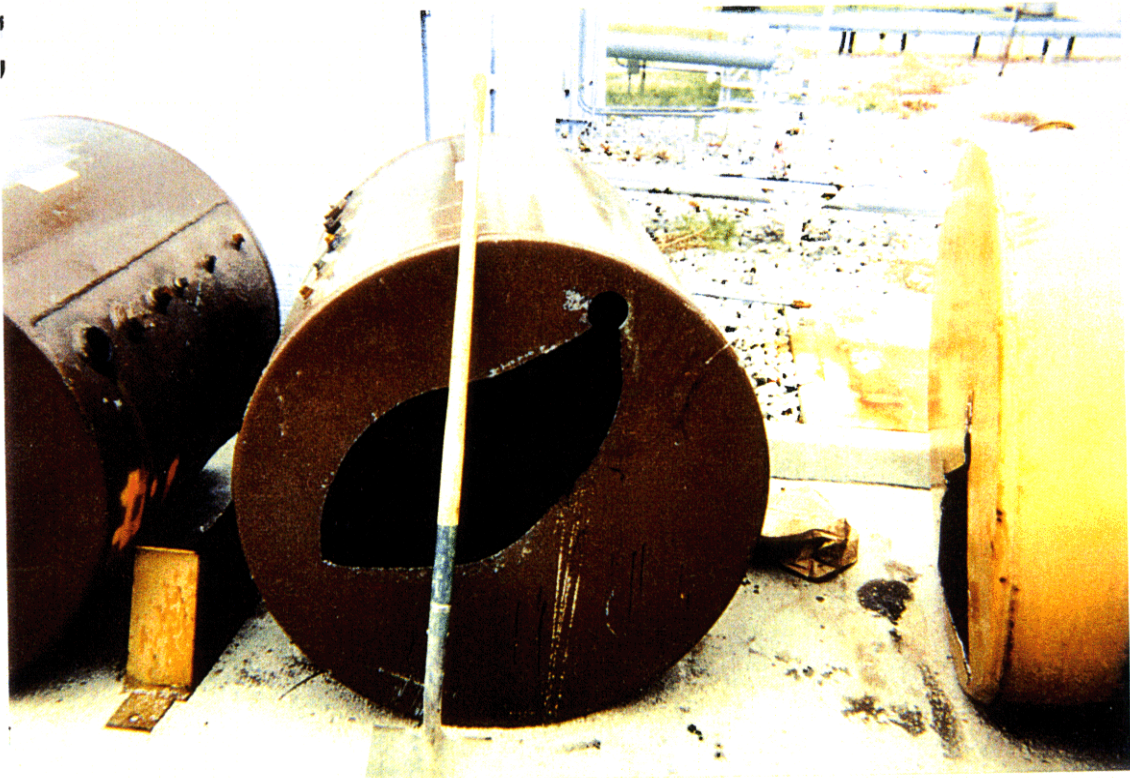
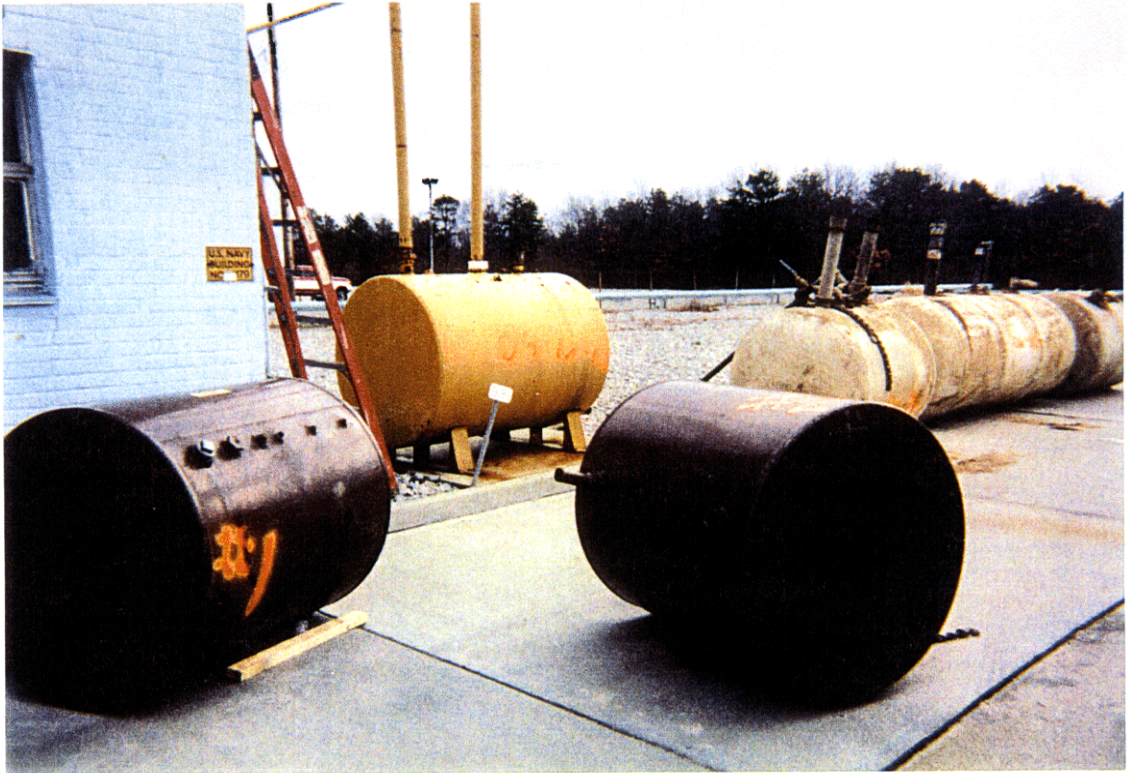
CHAIN OF CUSTODY RECORD

Tetra Tech NUS

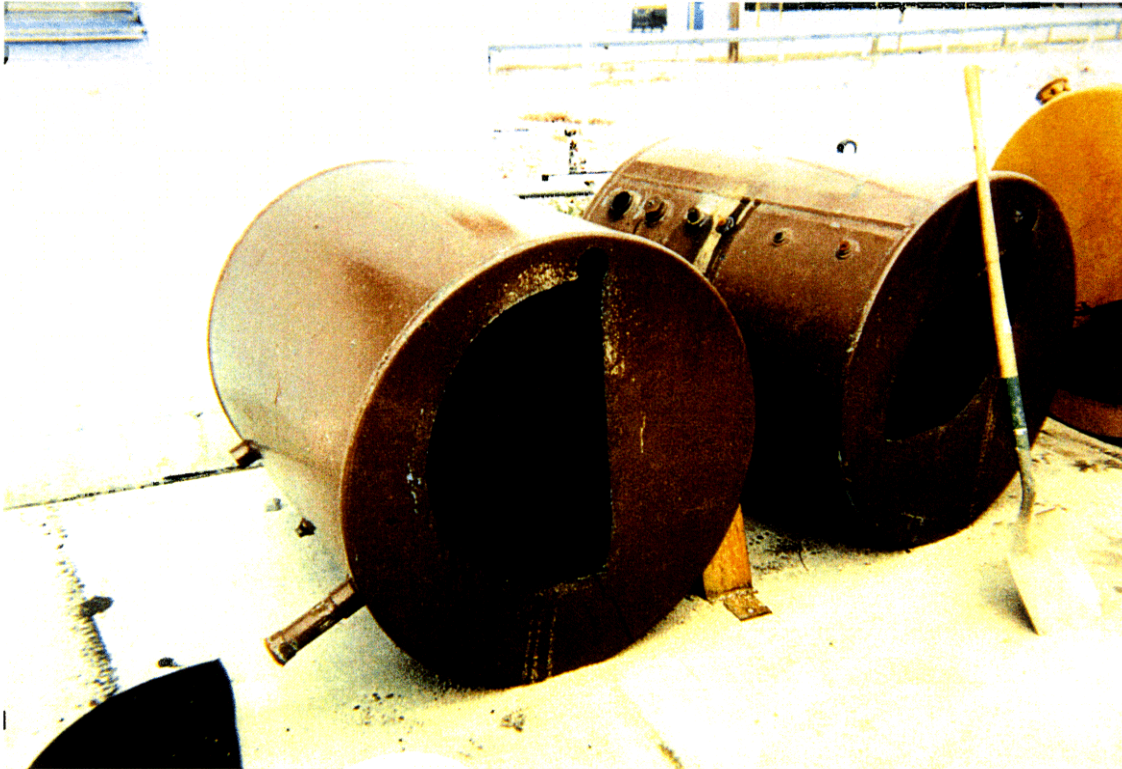
PROJECT NO.:		SITE NAME:		NO. OF CONTAINERS		REMARKS					
SAMPLERS (SIGNATURE):											
STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	TEL VIAL	TEL VIAL	TEL VIAL	TEL VIAL	TEL VIAL	TEL VIAL
4-2-98	0915		X	CA-DCT-01	8	2	6	-	-	-	
4-2-98	1045		X	FC-MW07-S	2	2	-	-	-	-	
4-2-98	1325		X	FC-MW08-S	2	2	-	-	-	-	
4-2-98	0920		X	CA-D01214-12-01	3	-	-	1	2	-	
4-2-98	1125		X	CA-D01214-12-02	3	-	-	1	2	-	
4-2-98	1130		X	CA-D01214-12-03	3	-	-	1	2	-	
4-2-98	1110		X	CA-D01215-13-01	3	-	-	1	2	-	
4-2-98	1600		X	CA-D01215-13-02	3	-	-	1	2	-	
4-2-98	1105		X	CA-D01215-13-03	3	-	-	1	2	-	
4-2-98	1430		X	Trip Blank	2	-	-	-	-	2	

APPENDIX F
PHOTOGRAPHS

NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-05-4; 06-05-5; 06-12-12



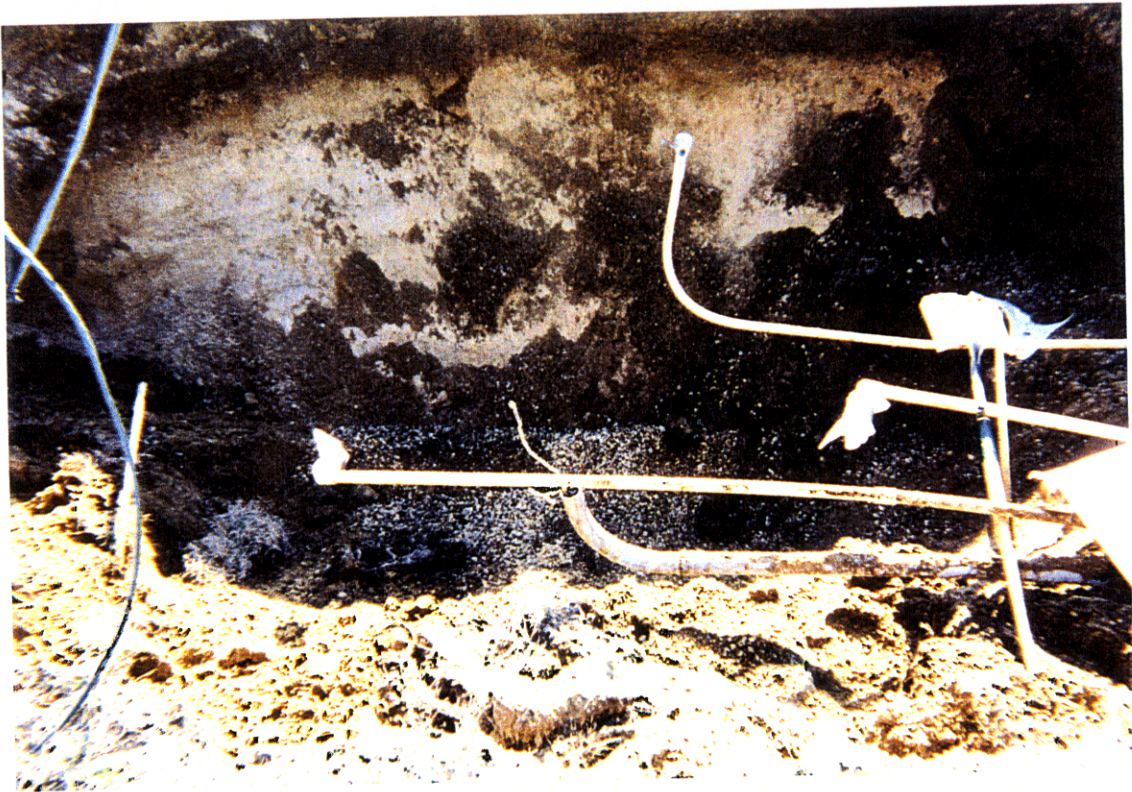
NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-05-4;06-05-5; 06-12-12



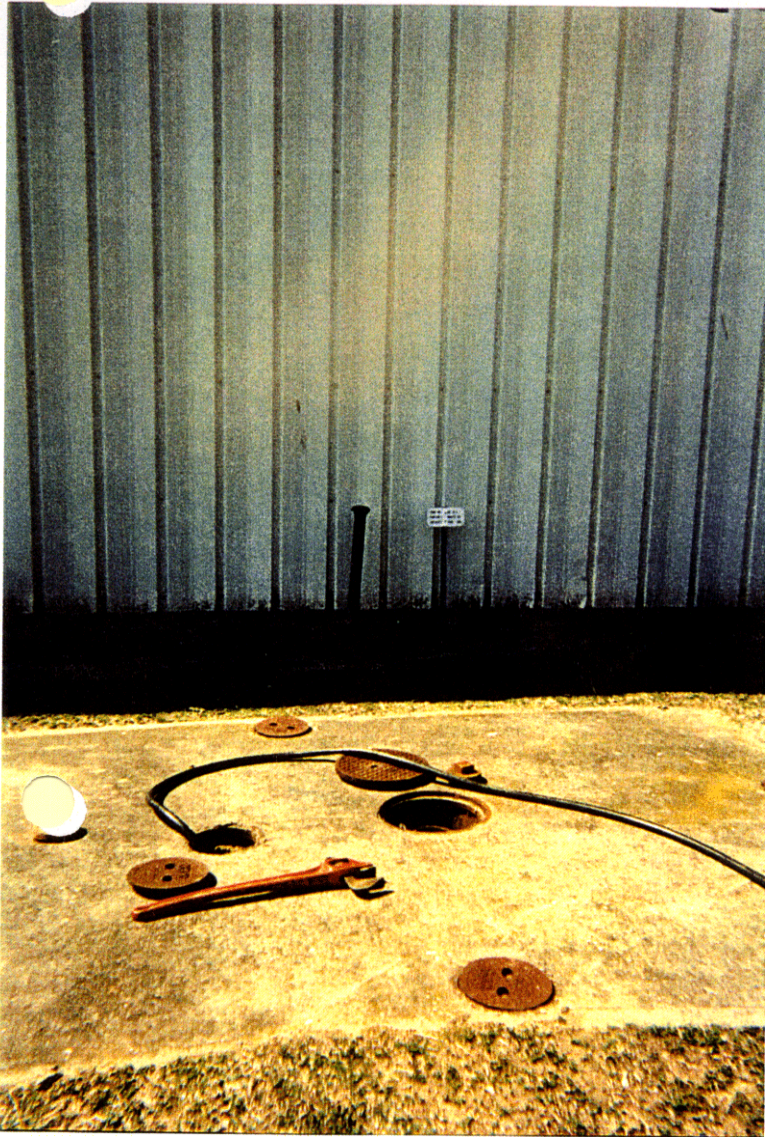
NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-40-1



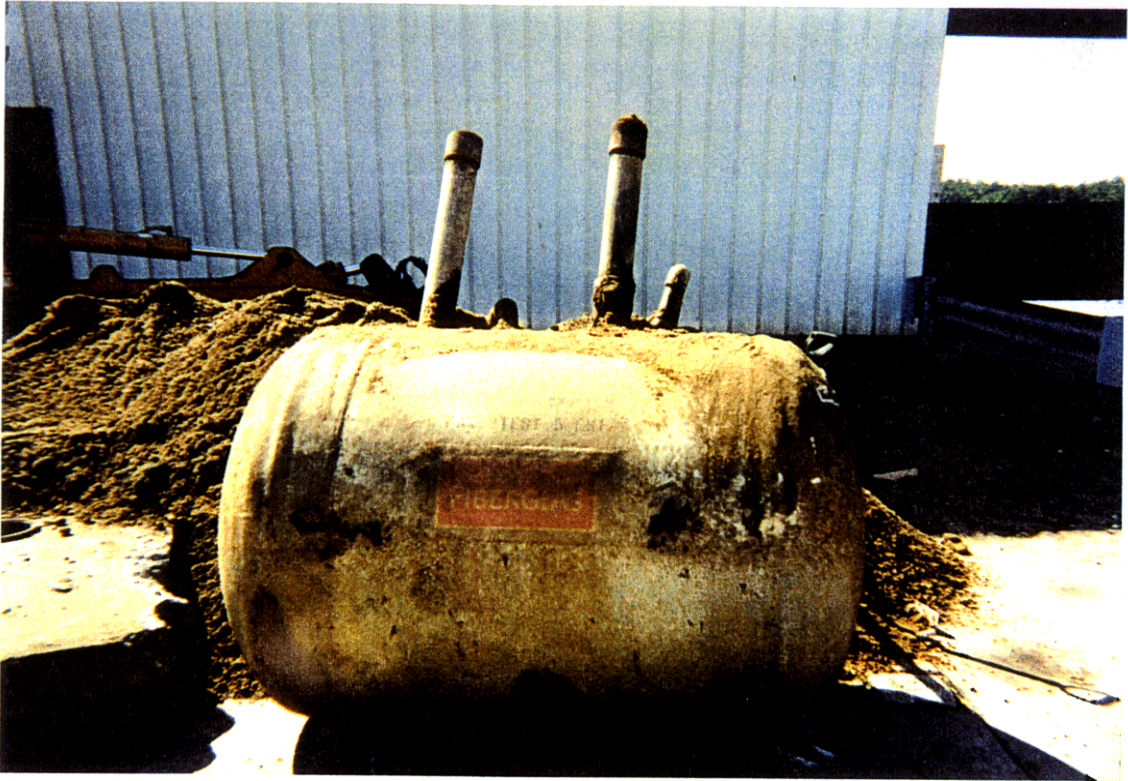
NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-40-1



NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-74-1



NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-74-1



NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-42-1



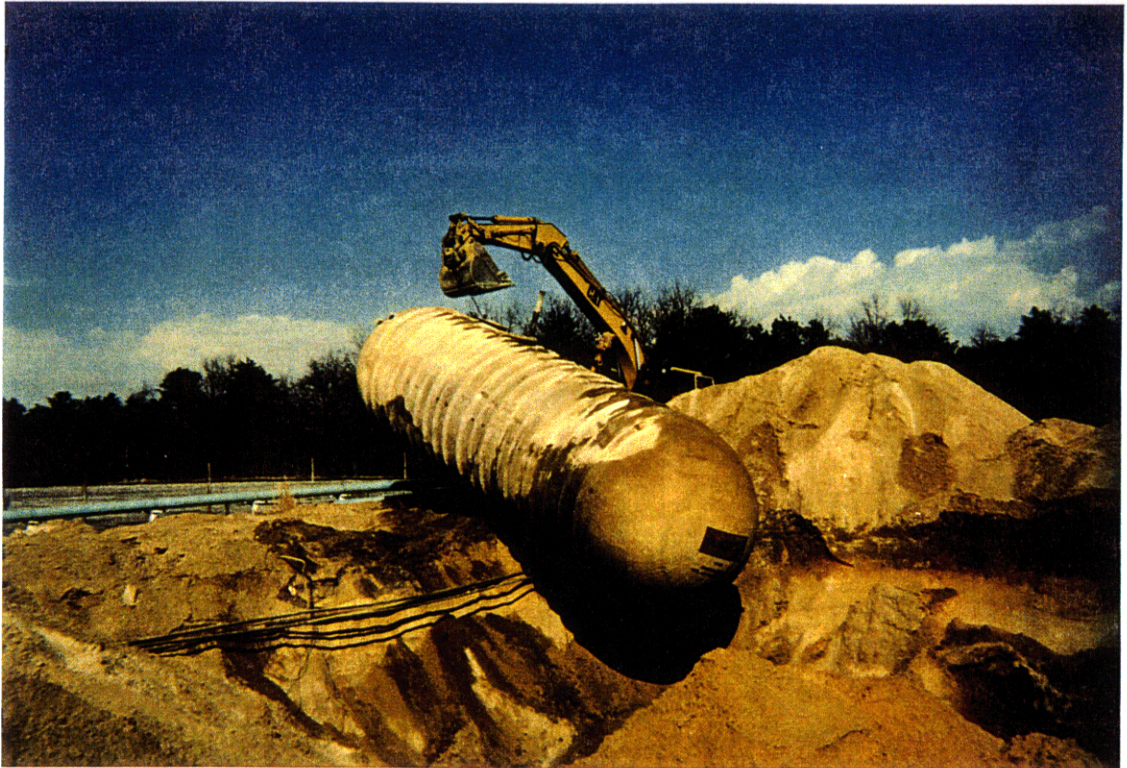
NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-42-1



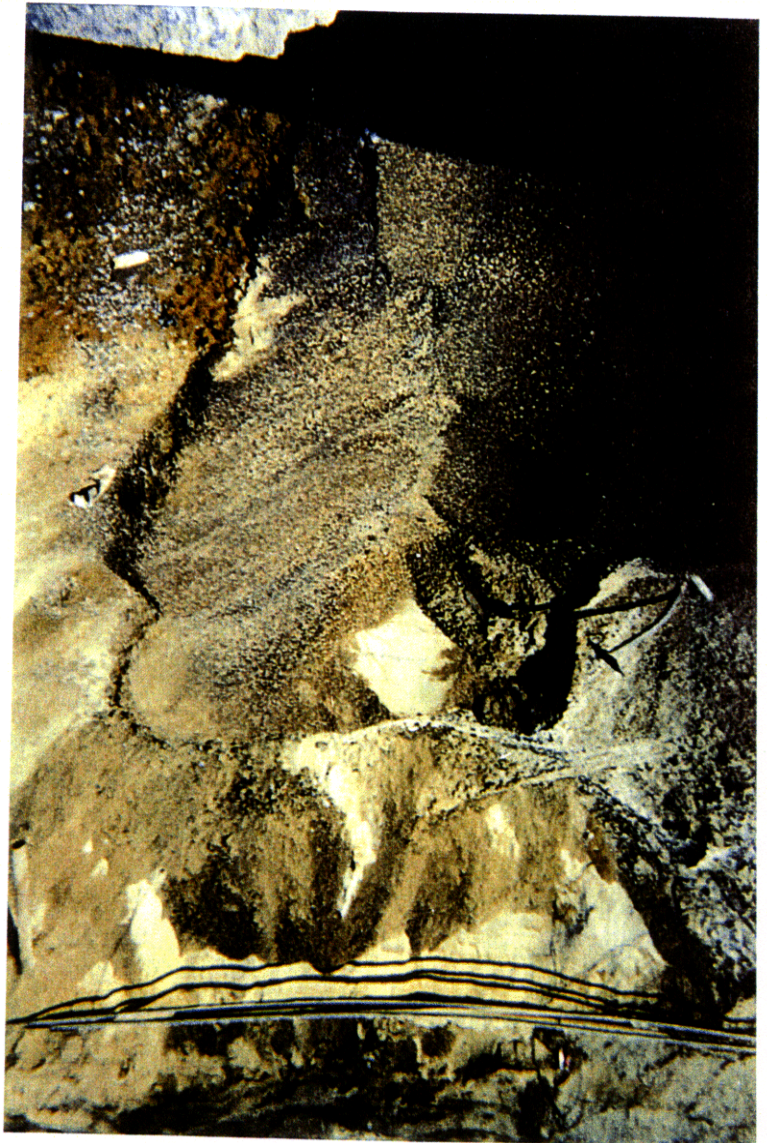
NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-12-13; 06-12-14; 06-12-15



NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-12-13; 06-12-14; 06-12-15



NWIRP CALVERTON
TANK REMOVAL PHOTOGRAPHS - APRIL 1998
TANK ID: 06-12-13; 06-12-14; 06-12-15



APPENDIX G
RECYCLE/DISPOSAL RECORDS
CLEAN FILL CERTIFICATION



N.Y.D. 7002727

No. 619351

GERSHOW RECYCLING**Wholesale Dealers In Scrap Iron & Metal**

71 Peconic Avenue, Medford, New York 11763

(516) 289-5188 • FAX (516) 289-6368

NAME

Tyrell

DATE

19

Gross**Tare**

ID# : 282

15:08:04

Fri 04/03/98

Net

25180 Wt. (IN)

ID# : 282

15:28:21

Fri 04/03/98

25180 lb Gross

23500 lb Tare

2560 lb Net

COMMODITY

*#2 Sher**38*MAN ON ☐MAN OFF ☐*E-1*



N.Y.D. 7002727

No. 619245

GERSHOW RECYCLING**Wholesale Dealers In Scrap Iron & Metal**

71 Peconic Avenue, Medford, New York 11763

(516) 289-6188 • FAX (516) 289-6368

NAME

Tryke

DATE

19

Gross**Tare****Net**

ID# : 240
12:26:54
Fr 1 04/03/98
ID# : 29740 Wt 240 (1b)
12:32:54
Fr 1 04/03/98
29740 1b Gross
23563 1b Tare
6180 1b Net

COMMODITY

*12/1**108*MAN ON ☐MAN OFF ☒

DEC PERMIT NUMBER 1-4726-00490/00003-0
FACILITY/PROGRAM NUMBER(S) 52-D-12



Under the Environmental
Conservation Law

EFFECTIVE DATE September 14, 1995
EXPIRATION DATE(S) September 13, 2005

TYPE OF PERMIT ☒ New ☐ Renewal ☐ Modification ☐ Permit to Construct ☐ Permit to Operate

- | | | |
|---|---|---|
| <input type="checkbox"/> Article 15, Title 5: Protection of Waters | <input type="checkbox"/> GNYCRR 608: Water Quality Certification | <input checked="" type="checkbox"/> Article 27, Title 7; GNYCRR 360: Solid Waste Management |
| <input type="checkbox"/> Article 15, Title 15: Water Supply | <input type="checkbox"/> Article 17, Titles 7, 8: SPOES | <input type="checkbox"/> Article 27, Title 9; GNYCRR 373: Hazardous Waste Management |
| <input type="checkbox"/> Article 15, Title 15: Water Transport | <input type="checkbox"/> Article 19: Air Pollution Control | <input type="checkbox"/> Article 34: Coastal Erosion Management |
| <input type="checkbox"/> Article 15, Title 15: Long Island Wells | <input type="checkbox"/> Article 23, Title 27: Mined Land Reclamation | <input type="checkbox"/> Article 36: Floodplain Management |
| <input type="checkbox"/> Article 15, Title 27: Wild, Scenic and Recreational Rivers | <input type="checkbox"/> Article 24: Freshwater Wetlands | <input type="checkbox"/> Articles 1, 3, 17, 19, 27, 37; GNYCRR 380: Radiation Control |
| <input type="checkbox"/> Article 25: Tidal Wetlands | | |
- ☐ Other:

PERMIT ISSUED TO Broad Hollow Estates and 110 Sand Co. - Attn: Chester Broman		TELEPHONE NUMBER (914) 946-3460 (516) 694-2822 249-4128	
ADDRESS OF PERMITTEE Broad Hollow Estates - P.O. Box 368, Purchase NY 10577 110 Sand Co., - 170 Cabot Street, West Babylon NY 11704			
CONTACT PERSON FOR PERMITTED WORK Paul Lappano - Lockwood, Kessler and Bartlett		TELEPHONE NUMBER (516) 938-0600	
NAME AND ADDRESS OF PROJECT/FACILITY 110 Sand Company Clean Fill Disposal Site Bethpage-Spagnoli Road			
LOCATION OF PROJECT/FACILITY Melville			
COUNTY Suffolk	TOWN Huntington	WATERCOURSE N/A	NYTM COORDINATES
DESCRIPTION OF AUTHORIZED ACTIVITY Construct and operate an expansion of an existing 58 acre clean fill disposal site by adding 63 acres in four phases (VII through X). The operation will be at the rate of <u>6000</u> cubic yards per day disposal of clean fill defined as concrete, steel, wood, sand, dirt, soil, glass, construction and demolition debris and other inert material designated by the Department.			

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified (see page 2) and any Special Conditions included as part of this permit.

PERMIT ADMINISTRATOR: Roger Evans	ADDRESS Bldg. 40, SUNY, Room 219, Stony Brook, NY 11790-2356		
AUTHORIZED SIGNATURE 	DATE September 14, 1995	Page 1 of 12	

C-4

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
VETERANS MEMORIAL HIGHWAY
HAUPPAUGE, N.Y. 11788

Edward J. Petrou, P.E.
Regional Director

John B. Daly
Commissioner

Oct. 14, 1996

110 Sand Co.
110 Cabot St.
West Babylon, N.Y. 11704

The 1996 Annual Sand and Gravel Report submitted for your proposed operating location has been approved.

Source #	10-34F,G
Sand Test #	94AF85
Gravel Test #	96AG22

The above test numbers are to be used for the next two years, at which time your source will be sampled again. If there are any questions regarding your aggregate approval, please contact Mr. Thomas F. O'Connor of my staff at (516) 952-6184.

Very Truly Yours,



William Brudi
Regional Materials Engineer - Region 10

C-5

MAY-14-98 02:29 AM

**NON-HAZARDOUS
MANIFEST**

1. Generator's US EPA ID No.

Exempt

Manifest
Document No.

2. Page 1

Of 1

3. Generator's Name and Mailing Address

CALVERTON NAVAL WEAPONS INDUSTRIAL
RESERVE PLANT SWAN POND RD
CALVERTON, NY 11933

4. Generator's Phone (516) 249-3150

5. Transporter 1 Company Name
ABLE ENVIRONMENTAL SERVICE

6. US EPA ID Number
NYR00003582

A. Transporter's Phone
1A-392
516 567-6545

7. Transporter 2 Company Name

8. US EPA ID Number

B. Transporter's Phone

9. Designated Facility Name and Site Address

A B OIL SERVICE LTD.
1599 Ocean Avenue
Bohemia, NY 11716

10. US EPA ID Number

NYD98702337

C. Facility's Phone

516 567-6545

11. Shipping Name and Description

12. Containers

13.
Total
Quantity

14.
Unit
Wt/Vol

a. TANK BOTTOMS - FUEL OIL

NO13

D M

02 D

NO13
G 500 P

b. PETROLEUM CONTAMINATED SOIL

NO16

D M

02 D

NO16
P 1200 P

D. Additional Descriptions for Materials Listed Above

E. Handling Codes Listed Above

501

15. Special Handling Instructions and Additional Information

24 HOUR EMERGENCY # (516) 567-6545

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of hazardous waste.

Printed/Typed Name

JOE KRIZHUKA

Signature

[Signature]

Month Day Year
10 05 98

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

STEVE SENG

Signature

[Signature]

Month Day Year
10 05 98

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

211

Signature

[Signature]

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

[Signature]

Month Day Year
10 05 98

GENERATOR'S COPY

G-6

CH 9-4108

CH 9-4199

CLIFFORD BROMAN & SON Inc.**170 CABOT STREET****WEST BABYLON, N.Y. 11704**

Date

4-1-1985

Name

TERRY BEAS

Address

BAYVIEW

Mileage

Job

COMMON HUNT HILL

Truck No.

99

Hrs. Truck Hire

Yds. Bank Run

Yds. Gravel

Yds. Sand

Yds. Fill

Yds. Grit

Yds. Stone

Yds. Top Soil

1/2 ton broken concrete removed

Trucks Driven Over Sidewalk at Customer's Risk

NO 076266

Rec'd

By

AK

S-2922

C-7

CH 9-4108

CH 9-4199

CLIFFORD BROMAN & SON Inc.
170 CABOT STREET
WEST BABYLON, N.Y. 11704

Date 4/2 1968Name Tyler BrosAddress Northrop - Peumman

Mileage _____

Job CalvertonTruck No. 58

	Hrs. Truck Hire		
	Yds. Bank Run		
	Yds. Gravel		
	Yds. Sand		
	Yds. Fill		
	Yds. Grit		
	Yds. Stone		
	Yds. Top Soil		
<u>16d</u>	<u>Removed</u>		

Trucks Driven Over Sidewalk at Customer's Risk

No A076905

Rec'd
ByTim A. Holt

S-2922

CH 9-4108

CH 9-4199

CLIFFORD BROMAN & SON Inc.**170 CABOT STREET****WEST BABYLON, N.Y. 11704**Date April 2 19 98Name TyreeAddress CalvertonMileage 94Job GrummanTruck No. 94

	Hrs. Truck Hire		
	Yds. Bank Run		
	Yds. Gravel		
	Yds. Sand		
	Yds. Fill		
	Yds. Grit		
	Yds. Stone		
	Yds. Top Soil		
1 Load	Glass Tanks Removed		

Trucks Driven Over Sidewalk at Customer's Risk

No **A076459**Rec'd
BySam Hunt

S-2922

CH 9-4108

CH 9-4199

CLIFFORD BROMAN & SON Inc.**170 CABOT STREET****WEST BABYLON, N.Y. 11704**Date 4/2 1968Name Typic BrosAddress Manhasset - CommackMileage Job CalumetTruck No. 98

	Hrs. Truck Hire		
	Yds. Bank Run		
	Yds. Gravel		
	Yds. Sand		
	Yds. Fill		
	Yds. Grit		
	Yds. Stone		
	Yds. Top Soil		
111	Removed Fiberglass Tank		
	+ 1 1/2 Hrs waiting time		

Trucks Driven Over Sidewalk at Customer's RiskNo **A076907**Rec'd
By [Signature]

S-2922

CH 9-4108

CH 9-4199

CLIFFORD BROMAN & SON Inc.

170 CABOT STREET

WEST BABYLON, N.Y. 11704

Date 4/3/98 19__Name TuneAddress Cabot StreetMileage 97

Job _____

Truck No. 97

Hrs. Truck Hire	<u>time on job</u>	<u>11:00</u>
Yds. Bank Run	<u>11</u>	<u>1:00</u>
Yds. Gravel	<u>11</u>	
Yds. Sand		
Yds. Fill		
Yds. Grit		
Yds. Stone		
Yds. Top Soil	<u>11</u>	
<u>1 lot of bricks removed</u>		
	<u>11</u>	

Trucks Driven Over Sidewalk at Customer's Risk

NR

23315

Rec'd

By 17

S-2922

G-11



N.Y.D. 7002727

No. 619245

GERSHOW RECYCLING

Wholesale Dealers In Scrap Iron & Metal

71 Peconic Avenue, Medford, New York 11763

(516) 289-6188 • FAX (516) 289-6368

DATE

19

NAME

Gross

Tare

Net

ID# 240
12:28:54
Fri 04/03/98
ID# 23740 MC (IND)
12:32:54
Fri 04/03/98
23740 lb Gross
23688 lb Tare
6180 lb Net

COMMODITY

MAN ON ☐

MAN OFF ☐

G-12

Page 1 of 3

SPECIFICATION - ATTACHMENT I

DISPOSAL FACILITY AND TRANSPORTER CERTIFICATION

- INSTRUCTION:
- 1) Detach and complete this form for each waste stream. Make copies of this form if necessary.
 - 2) An officer of the firm must sign and date this form.
 - 3) Submit form(s) with technical proposals.

Contractor:

Waste Stream:

Gasoline & JP-5

1. WASTE TRANSPORTERS

Transporter #1

Name:

Tyree Organization

Address:

208 Rte 109

Town, State, Zip:

Farmingdale, NY 11735

EPA ID:

NYD006801245

Transporting

From:

NWIRP, Calverton

To:

Tyree Organization

Transporter #2

Name:

International Petroleum Corp

Address:

505 S. Market St.

Town, State, Zip:

Wilmington, DE 19801

EPA ID:

DED984073692

Transporting

From:

Tyree - Farmingdale

To:

IBC - Delaware

Transporter #3

Name:

Address:

Town, State, Zip:

EPA ID:

Transporting

From:

To:

Member

 **The
Tyree
Organization**

E-13

TREATMENT, STORAGE, AND DISPOSAL FACILITIES
(including Temporary Storage)

Page 2 of 3

TSDF #1

Name:

Tyree Organization

Address:

208 Rte 109

Town, State, Zip:

Farmingdale, NY 11735

EPA ID:

NYD006801245

Activity:

interim storageWaste Acceptance,
Criteria:

TSDF #2

Name:

International Petroleum Corp

Address:

505 S. Market St

Town, State, Zip:

Wilmington, De 19801

EPA ID:

DE D984073692

Activity:

Recycle / Fuels BlendingWaste Acceptance,
Criteria:

TSDF #3

Name:

Address:

Town, State, Zip:

EPA ID:

Activity:

Waste Acceptance,
Criteria:

Identify activity: storage, the type of treatment, or the manner of disposal (e.g., landfilled, incineration, etc.). Specify tests required and the acceptance criteria. Attach another sheet if necessary.

SPECIFICATION

- ATTACHMENT I

DISPOSAL FACILITY AND TRANSPORTER CERTIFICATION

- INSTRUCTION: 1) Detach and complete this form for each waste stream. Make copies of this form if necessary.
2) An officer of the firm must sign and date this form.
3) Submit form(s) with technical proposals.

Contractor:

Waste Stream:

Nonhazardous Oils + Waters

1. WASTE TRANSPORTERS

Transporter #1

Name:

Q.B. Oil Service Ltd

Address:

1599 Ocean Ave

Town, State, Zip:

Bohemia, NY 11716

EPA ID:

NYD987023371

Transporting

From:

NWIRP Calverton

To:

QBOil Bohemia

Transporter #2

Name:

International Petroleum Corp

Address:

505 S. Market St

Town, State, Zip:

Wilmington, De 19801

EPA ID:

DED984073692

Transporting

From:

QBOil - Bohemia, NY

To:

EPA - Delaware

Transporter #3

Name:

Address:

Town, State, Zip:

EPA ID:

Transporting

From:

To:

Member

 **The
Tyree
Organization**

E-15

MENT, STORAGE, AND DISPOSAL FACILITIES
(including Temporary Storage)

Page 3 of 3

TSD# #1

Name:

QBOil Service Ltd.

Address:

1599 Ocean Ave

Town, State, Zip:

Bohemia, NY 11716

EPA ID:

NYD987023371

Activity:

interim StorageWaste Acceptance,
Criteria:

TSD# #2

Name:

International Petroleum Corp

Address:

505 S. Market St

Town, State, Zip:

Wilmington, De 19801

EPA ID:

DED984073692

Activity:

Treatment / Fuels BlendingWaste Acceptance,
Criteria:

TSD# #3

Name:

Address:

Town, State, Zip:

EPA ID:

Activity:

Waste Acceptance,
Criteria:

- Identify activity: storage, the type of treatment, or the manner of disposal (e.g., landfilled, incineration, etc.). Specify tests required and the acceptance criteria. Attach another sheet if necessary.

Member

**The
Tyree
Organization**

G-16

MENT, STORAGE, AND DISPOSAL FACILITIES
including Temporary Storage)

Page 2 of 3

TSDP #1

Name:

AB Oil Service Ltd.

Address:

1599 Ocean Ave

Town, State, Zip:

Bohemia, NY 11716

EPA ID:

NYD987023371

Activity:

interim storage

Waste Acceptance
Criteria:

TSDP #2

Name:

International Petroleum Corp

Address:

505 S. Market St

Town, State, Zip:

Wilmington, De 19801

EPA ID:

DED984073692

Activity:

Treatment / Fuels Blending

Waste Acceptance
Criteria:

TSDP #3

Name:

Address:

Town, State, Zip:

EPA ID:

Activity:

Waste Acceptance
Criteria:

- Identify activity: storage, the type of treatment, or the manner of disposal (e.g., landfilled, incineration, etc.). Specify costs required and the acceptance criteria. Attach another sheet if necessary.

Page 1 of 2

SPECIFICATION

- ATTACHMENT I

DISPOSAL FACILITY AND TRANSPORTER CERTIFICATION

- INSTRUCTION: 1) Detach and complete this form for each waste stream. Make copies of this form if necessary.
 2) An officer of the firm must sign and date this form.
 3) Submit form(s) with technical proposals.

Contractor: _____

Waste Stream: _____

nonhazardous petroleum tank bottoms

1. WASTE TRANSPORTERS

Transporter #1

Name: ABle EnvironmentalAddress: 1599 Ocean AveTown, State, Zip: Bohemia, NY 11716EPA ID: NVR000003582Transporting From: NWIRP, Calverton
To: AB Oil - Bohemia

Transporter #2

Name: International Petroleum CorpAddress: 505 S. Market StTown, State, Zip: Wilmington, DE 19801EPA ID: DED984073692Transporting From: AB Oil - Bohemia
To: IPC - Wilmington, DE

Transporter #3

Name: _____

Address: _____

Town, State, Zip: _____

EPA ID: _____

Transporting From: _____
To: _____

Member


**The
Tyree
Organization**

E-18

SPECIFICATION

- ATTACHMENT I

DISPOSAL FACILITY AND TRANSPORTER CERTIFICATION

- INSTRUCTION: 1) Detach and complete this form for each waste stream. Make copies of this form if necessary.
2) An officer of the firm must sign and date this form.
3) Submit form(s) with technical proposals.

Contractor:

Waste Stream:

JP-5 + Gasoline Tank Bottoms

1. WASTE TRANSPORTERS

Transporter #1

Name:

Radiac Research Corp.

Address:

261 Kent Ave

Town, State, Zip:

Brooklyn, NY 11211

EPA ID:

NYD049178296

Transporting

From:

NWIRP, Calverton

To:

Radiac - Brooklyn

Transporter #2

Name:

Radiac Research Corp

Address:

261 Kent Ave

Town, State, Zip:

Brooklyn, NY 11211

EPA ID:

NYD049178296

Transporting

From:

Radiac - Brooklyn

To:

Transporter #3

Name:

Address:

Town, State, Zip:

EPA ID:

Transporting

From:

To:

Member

 **The
Tyree
Organization**

E-19

TREATMENT, STORAGE, AND DISPOSAL FACILITIES
(including Temporary Storage)

Page 2 of 3

TSDY #1

Name:

Radiac Research Corp

Address:

261 Kent Ave

Town, State, Zip:

Brooklyn, NY 11211

EPA ID:

NYD049178296

Activity:

interim storageWaste Acceptance
Criteria:

TSDY #2

Name:

Essex Waste Mgmt Services, Inc.

Address:

1483 S.W. Hwy. 58

Town, State, Zip:

Kingsville, Mo. 64061

EPA ID:

MOD980962849

Activity:

Treatment / Fuels BlendingWaste Acceptance
Criteria:

TSDY #3

Name:

Address:

Town, State, Zip:

EPA ID:

Activity:

Waste Acceptance
Criteria:

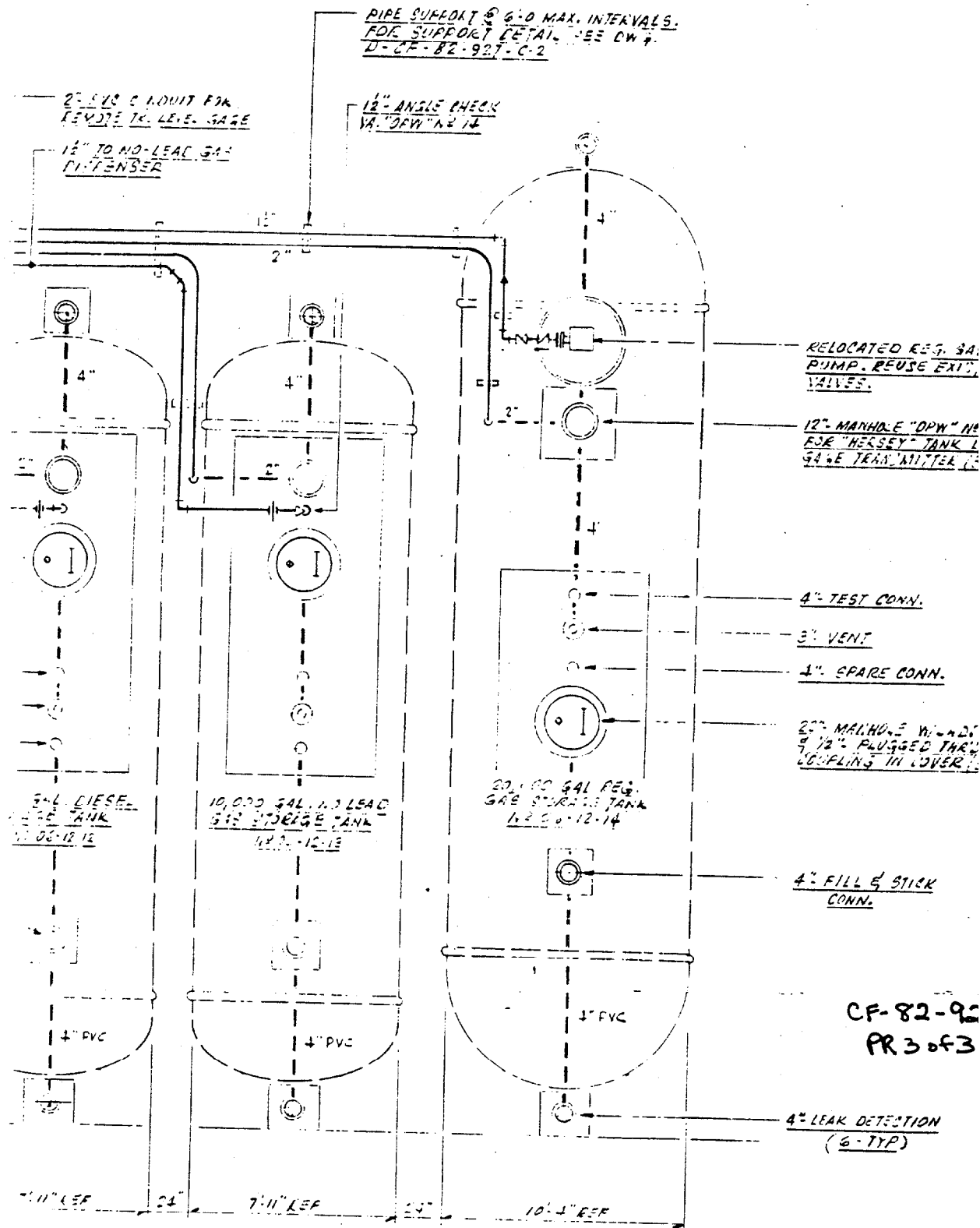
Identify activity: storage, the type of treatment, or the manner of disposal (e.g., landfilled, incineration, etc.). Specify tests required and the acceptance criteria. Attach another sheet if necessary.

Member


**The
Tyree
Organization**

C-20

APPENDIX H
TANK FIGURES



DETAIL 5
PR3
1/4" = 1'-0"

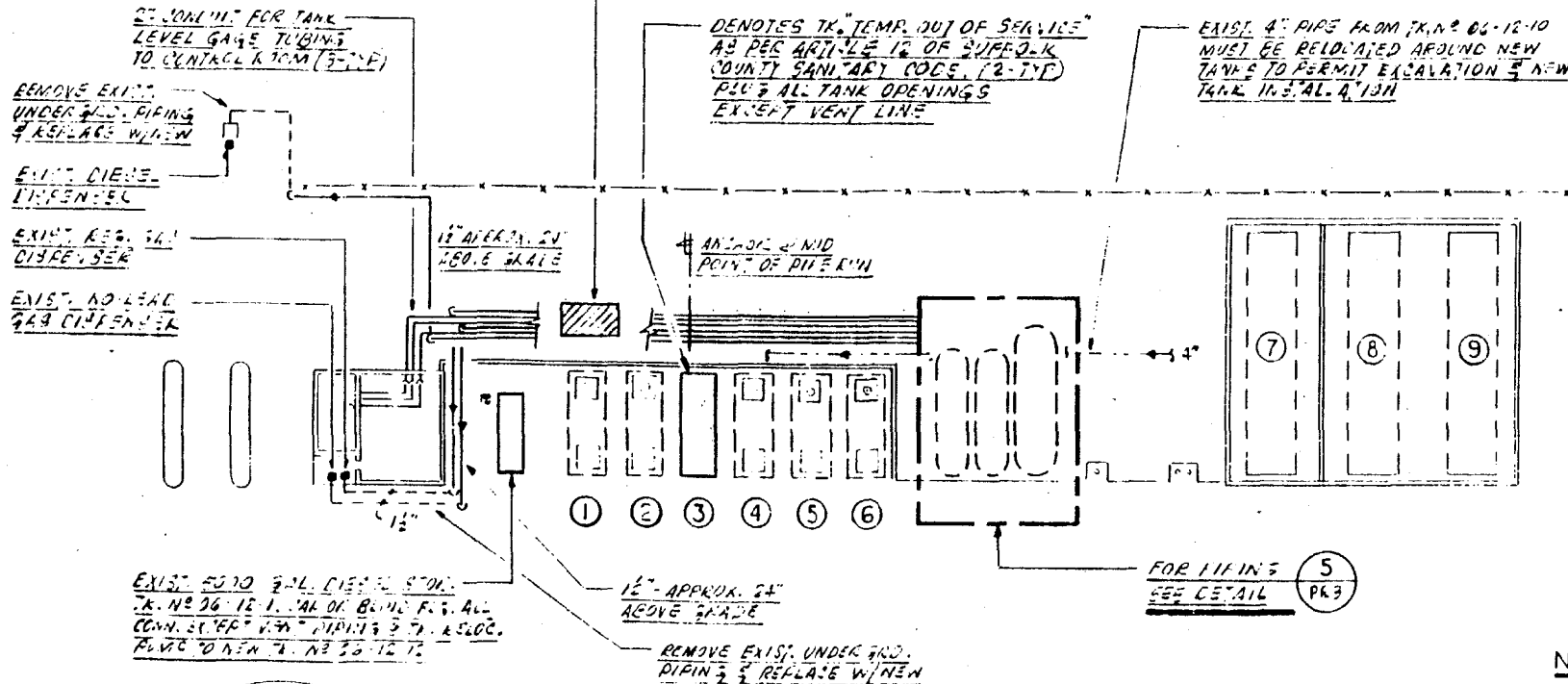
A-1

CF-82-92
PR 3 of 3



EXIST. 4000 GAL. NO LEAD GAS STOR. TK.
NR 06-12-2 SHALL BE EXCAVATED, REMOVED,
GAS FILL. ETC. W/ C. E. FILL & AREA RETURNED
SIMILAR TO EXIST. SURROUNDINGS.

- ① 15,000 GAL. JET "A" STOR. TK. NR 06-12-6
- ② 15,000 GAL JET "A" STOR. TK. NR 06-12-7
- ③ EXIST. 15,000 GAL. REG. GAS STOR. TK. NR 06-12-11
CAP OR BLIND FL. ALL CONN. EXCEPT VENT. PIPING & TK.
RELOCATE PUMP TO NEW TK. NR 06-12-14
- ④ 15,000 GAL. JF-4 STOR. TK. NR 06-12-3



DETAIL 4

NOTES

ALL ABOVE GRADE
SEAMLESS ASTM A
3000 # FORGED STEEL
ALL VERTICAL PIPING
TO FIELD JOINTS
SHALL BE 304 STAINLESS
ALL CAPS ABOVE
THREADED & NPT
ALL ABOVE GRADE
AS PRIMED WITH
EPOXY PAINT

H-2

DIESEL & NO LEAD.

MODEL G-6 10,000 STANDARD MANWAY TANK

06-12-12

06-12-13

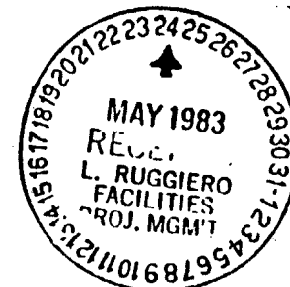
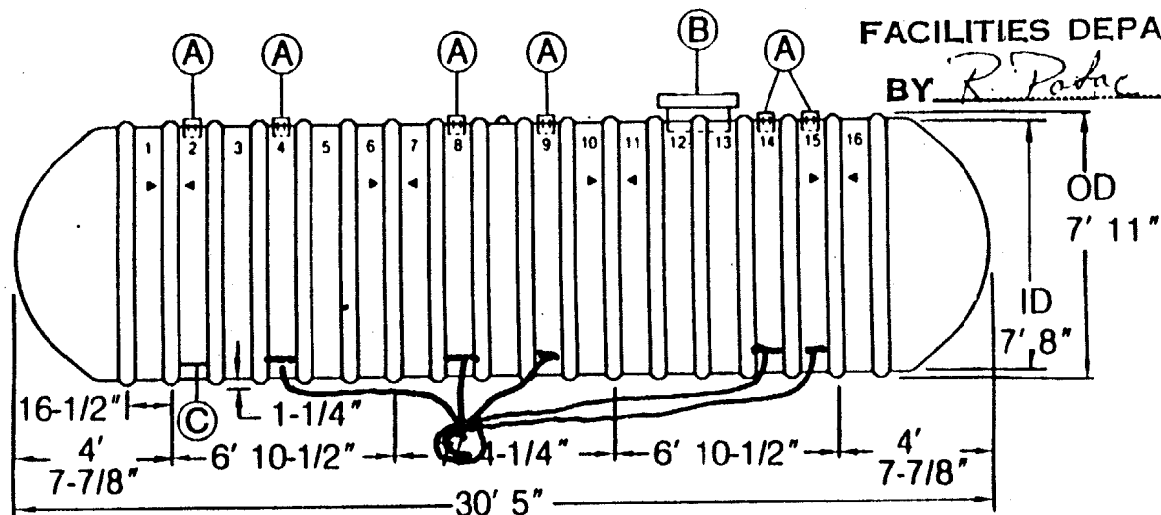
APPROVED

EXCEPT AS NOTED

GRUMMAN AEROSPACE CORPORATION

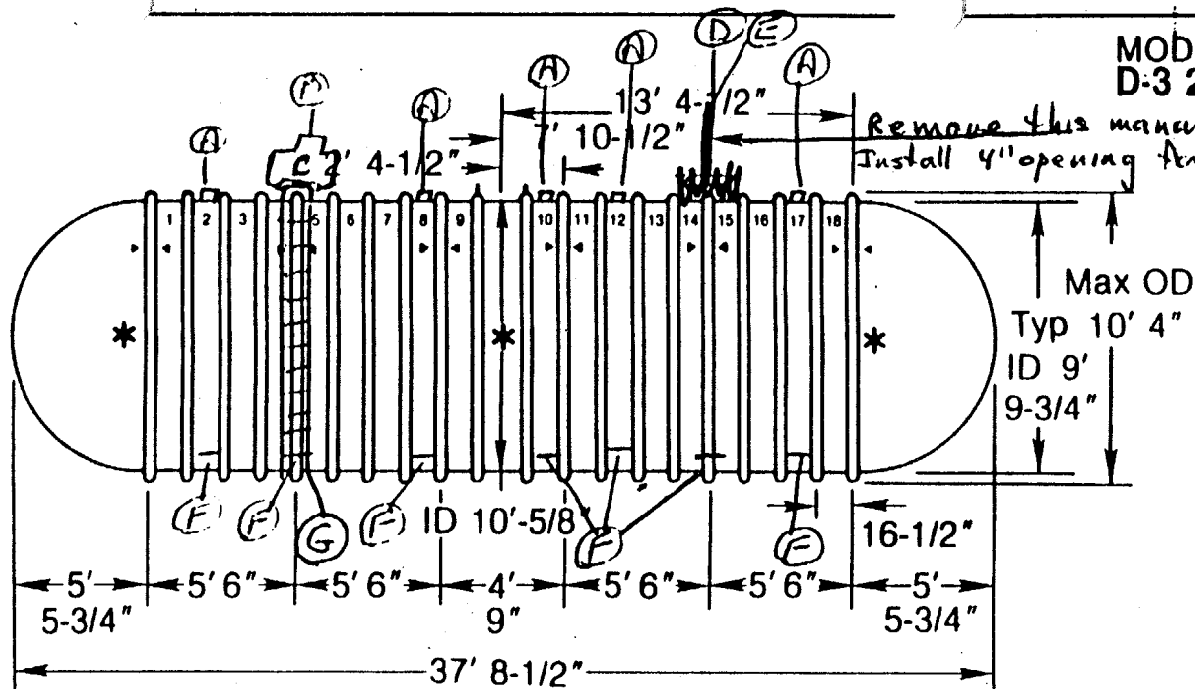
FACILITIES DEPARTMENT-ENGINEERING

BY R. Padac DATE 6/7/83



CUSTOMER				ACCESSORIES					S				
STATION									T				
SERVICE				MK.	ITEM	NO.	SIZE	POSITION	U				
QUANTITY	MODEL	NOM. CAPACITY	APPROX. WEIGHT	A	NPT FTGS	6	4"	2,4,8,9,14&15	V				
	G-6 10,000	9,730 GALS.	2,915 LBS.	B	FLANGED MANWAY	1	22"	12&13	W				
MODIFICATIONS & NOTES				C	STEEL DEFLECTOR PLATE	1	12"	sq. 2	X				
				D	MANWAY RISER				Y				
INTERFACE MAT	20 MIL C-GLASS			E	NPT (4*) FITTING IN M/WAY COVER				Z				
INNER RESIN	ISOPHTHALIC			F	LADDER								
SECOND RESIN				G									
INSULATION				H									
EXTERIOR RESIN	ISOPHTHALIC			I									
FINISH COAT				J									
FINISH	18-SHOWN (ISOPHTHALIC)			K									
OTHERS				L									
				M									
				N									
				O									
				P									
				Q									
										DRAWING STATUS		Backfill Must Be Per Current Pub. No. 3-PE-6304. Owens-Corning Fiberglas	
										DATE		OWENS-CORNING FIBERGLAS TRADEMARK	

SPECIAL

MODEL
D-3 20,000**Short Form Specification:**

The contractor shall provide Fiberglass U.L. - labeled underground storage tanks in sizes and with fittings as shown on the drawings. The tanks shall be manufactured by Owens-Corning Fiberglass.

Tanks shall be tested and installed with pea gravel or approved alternate backfill material according to the current installation instructions (Owens-Corning Fiberglass Publication 3-PE-6304) provided with the tank.

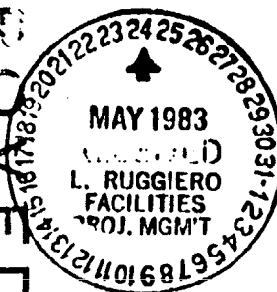
1. Hold down strap rib locations are indicated by arrows ▶ ◀
2. Fittings cannot be installed in locations marked *
3. For information and limitations on accessory locations on tanks, refer to current issue of Pub. No. 3-PE-6312, "Fiberglass Tanks for Fuel Storage"

FITTING SCHEDULE	MK	SIZE	NO	ITEM	NOTES
	A	4"	5	NPT 4" Fittings	
	B	22"	1	22" Manway w/42" Riser	
	C	4"	1	NPT 4" Fitting in m/way cover	
	D	30"	1	30" Manway	
	E	30x36	1	30" x 36" Manway Extension	1 4" Riser
	F	12" sq.	76	Deflector Plates	
	G		1	Steel Ladder	
	H				
	I				
	J				
	K				
	L				

CUSTOMER				DESTINATION & METHOD															
RECOMMENDED SERVICE																			
<table border="1"> <tr> <th>QUANTITY</th> <th>MODEL</th> <th>ACTUAL CAP.</th> <th>APPROX. WT.</th> <th>CUST. DRWG. NO.</th> <th>DRWG. NO.</th> </tr> <tr> <td></td> <td>D-3 20,000</td> <td>19,807 Gals.</td> <td>4,940 Lbs.</td> <td></td> <td></td> </tr> </table>								QUANTITY	MODEL	ACTUAL CAP.	APPROX. WT.	CUST. DRWG. NO.	DRWG. NO.		D-3 20,000	19,807 Gals.	4,940 Lbs.		
QUANTITY	MODEL	ACTUAL CAP.	APPROX. WT.	CUST. DRWG. NO.	DRWG. NO.														
	D-3 20,000	19,807 Gals.	4,940 Lbs.																
PREPARED BY				TELEPHONE															

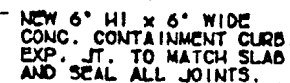
GRUMMAN AEROSPACE CORPORATION
FACILITIES DEPARTMENT-ENGINEERING
BY *R. F. Kishner* DATE *6/5/82*

APPROVED
EXCEPT AS NOTED



OWENS CORNING
FIBERGLAS

ALL CONC. WITHIN THE CONTAINMENT IS NEW CONCRETE.
ANY EXIST. JOINTS BETWEEN FUEL ISLAND AND NEW CONC. SLABS
SLABS WILL BE NEW EXP. JOINTS WITH SEALANT.



DETAILS